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ABSTRACT

The importance of obtaining information on nonresidential student expenditures has increased in recent years for two principal reasons: (1) the proportion of college students living off campus has risen sharply over the last decade; and (2) the cost of living has risen dramatically. Most student budget information to date has been related largely to the expenditures of college students who live on campus. Financial aid officers, prospective students, and parents need information on actual costs of living off campus while attending college. For this reason, a study was undertaken to provide estimates of national postsecondary student expenditures. Data are presented on costs related to housing, utilities, and food. (Author/MSE)

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A STUDY OF NON-RESIDENTIAL POSTSECONDARY STUDENT EXPENDITURES

Product No. 2

"Report on Existing Data"

January 31, 1977

Prepared for:

Office of Planning, Budgeting and Evaluation
U.S. Office of Education
Departmentof Health, Education, and Welfare

In accordance with:

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U S DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
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Applied Management Sciences would also like to thank its consultants for this study; Dr. Joseph Boyd, Executive Director of the Illinois State Scholarship Commission, and Dr. Lee Hansen, Professor of Economics and Educational Policy Studies at the University of Wisconsin, whose input aided in the timely completion of the research effort.

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I. INTRODUCTION

The importance of obtaining information on nonresidential student expenditures has increased in recent years for two principal reasons. First, the proportion of college students living off campus has risen sharply over the last decade. This phenomenon is reflective of the increased enrollment in 2-year institutions, such as community colleges, which do not provide dormitory space for their students. Also, 4-year institutions have been reluctant to build dormitories because of rising construction costs and an increasing desire on the part of students to live off-campus. A second factor which has contributed to the need for information about student expenditure patterns is the dramatic rise in the cost of living in recent years. In fact, for many students non-instructional expenditures represent the largest out-of-pocket cost of attending an institution of higher education.

Unfortunately, most student budget information to date has been related largely to the expenditures of college students who reside on campus. For example, practically every college catalogue provides information on the costs of institutional housing and food or meal plans. For the student who anticipates living off-campus, however, virtually no information is available on the costs he is likely to incur.

This lack of information about nonresidential student expenditures poses problems for many people. Financial aid officers, for example, are unable to accurately estimate what is a reasonable amount of financial assistance for a student who lives off-campus. Yet, Basic Education Opportunity Grants, which are the greatest single source of student aid at most schools, require by law that the awards be based on actual costs whether incurred on or off campus. Thus, financial aid officers are charged with the duty to administer aid on the basis of actual costs when data on the subject are generally not available.

The need for reliable information on non-residential student expenditures, however, extends beyond the financial aid officer. Prospective college students and their parents need information about these expenditures in order to decide which colleges are most or least expensive, and whether it is preferable to live on or off campus from a cost position. Without reliable information on off-campus living expenditures, sound fiscal planning by students or parents is virtually impossible.

Given the paucity of data on non-residential student expenditures, the Office of Education's Office of Planning, Budgeting, and Evaluation contracted with Applied Management Sciences to assemble all currently available information on non-residential postsecondary student expenditures, present the empirical estimates and/or constructs from these estimates in a matrix form, and assess the quality of each data item. The purpose of this report is to describe the results of the initial secondary data assembly.

The specific groups of students for which information was collected were single (not married) students of the following types:

- financially dependent students living with their parents
- financially dependent students not living on-campus or with their parents

- financially independent students not living on campus.

Further delineating the scope of the inquiry on student expenditures are the cost categories which were investigated. Included were mean expenditures for the following:

- Housing or room
- Food or board
- Transportation (commuting costs to and from class)
- Medical and Dental
- Miscellaneous

Because the miscellaneous category is a "catch-all", the following breakdown of miscellaneous items was developed:

- Books and supplies
- Clothing, laundry, and drycleaning
- Recreation
- Travel to and from home (non-commuting)
- Debt repayment
- Miscellaneous, not elsewhere classified

The final variable examined was parental income. The five major expenditure categories and three student types were further stratified by parental income quartiles, resulting in a matrix containing 60 cells.

A measure of what is actually spent (out-of-pocket) by the aforementioned student types is primarily of use to financial aid administrators. A more inclusive measure such as resource usage may be more appropriate for the parent who is attempting to measure the full cost of financing their child's college education. For example, a dependent student living at home may record zero out-of-pocket costs for room and board. In order to determine what the cost to the parent is for having their child live at home, it must be measured from a resource usage standpoint (e.g., student's share of housing, utilities, food, etc.). Thus, in addition to out-of-pocket costs, this study attempted, to the extent possible, to measure room and board expenditures of dependent students living at home on the basis of resource usage as well as out-of-pocket.

The major purpose of the present effort is to provide estimates of postsecondary student expenditures on a national basis. These national estimates, although providing an overall picture of expenditures by students, may in fact be somewhat limited in terms of determining students' financial needs in different areas of the country. Therefore, methods for developing regional estimates from national estimates were explored. One possible approach to alleviating this deficiency is to adjust these national estimates to reflect regional and local variations in the costs of higher education, thus increasing the usefulness of the data for those persons responsible for the day-to-day operations of determining students' financial needs.

Such adjustments of the estimates reported in this study can be accomplished through the use of the Consumer Price Index as calculated by the Bureau of Labor Statistics. There are several components of the CPI that specifically relate to the study at hand; namely, food, housing, transportation and medical care. Estimates of the CPI for these components are available for several areas of the country. First, BLS collects such data for 56 areas, most of which are Standard Metropolitan Statistical Areas (SMSAs). These 56 areas are subdivided into five size classes, of which classes 1 and 2 are the 23 largest SMSAs in the nation. The CPI components for these 23 areas are available on a monthly basis from BLS. Information on the other 33 areas however is not published; they are simply used as bases for calculating the national CPI. In addition to the 23 SMSAs, CPI components are also reported for four regions of the country; West, South, North Central, and Northeast. Therefore, it is possible to calculate regional estimates of student expenditures from the national estimates reported in this study.

The calculation of regional estimates from national data using these indices is, however, less than ideal. A better approach is to obtain such estimates on a regional basis, which would provide more actual approximations of student expenditures, and would thus account for individual differences in expenditure patterns. The regional estimates couldthen be used to adjust the national estimates. This is the approach that should be taken if primary data collection is undertaken.

In order to obtain estimates of national student expenditures, it was necessary to assess the state-of-the-art in non-residential student expenditures. Specific objectives included the following:

- To identify, review, and catalogue all studies concerning student expenditures conducted in the past ten years.
- To identify, assess, and analyze all student expenditure data currently held by Federal agencies.
- To determine the "best" empirical estimates of student expenditures and assemble them in matrix form with documentation accompanying each element.
- To fill empty cells through manipulation of other data and any known relationships between elements.
- To evaluate the overall quality of the statistics found and make recommendations as to the necessity of additional data collection.

The methodology that was employed to meet these objectives is described in depth in Section II of this report. The subsequent section (Section III) details the results of our study and provides national estimates of the previously described student expenditures. Also presented in this section is careful documentation of all the empirical evidence that was obtained. The concluding section of this report (Section IV) presents an evaluation of the data.

II. STUDY METHODOLOGY

The need for comprehensive and accurate information on the actual expenses of non-residential postsecondary students has been documented in Section I of this report. The collection and compilation of such data will provide (1) a central bank of data that can be used by researchers in the field; and (2) data for Federal administrators to use in the determination of college students' needs and in the estimation of the real costs of postsecondary education. This section discusses the methodological approach that Applied Management Sciences followed in conducting the contracted effort.

The methodology utilized during the research effort consisted of four major steps: (1) determing the data requirements; (2) conducting a comprehensive search for all relevant literature and data sources; (3) evaluating data content and quality; and (4) acquiring, assembling and constructing the data for each cell in the matrix. Due to varying identification and acquisition rates, the last three steps were conducted concurrently. Thus, the identification, review and evaluation, and acquisition tasks were ongoing processes, and were conducted throughout the contract.

II.1: Clarification of Data Requirements

The first issue to be addressed was the determination of specific "working" definitions of student types and expenditure categories. Because data items were to be collected from many different sources, which often attach different meanings to the same terms, it was imperative that precise definitions be developed and specified for each student type and each expenditure category.

As described earlier, it was determined that three categories of non-residential postsecondary students would be used: (1) independent students living off-campus and not with parents; (2) dependent students living off-campus but not with parents; and

(3) dependent student living at home with parents. The definitions for expenditure categories were also determined to a large extent prior to initial project work, but further delineations of what elements were to be included in each category resulted from a meeting between Applied Management Sciences and the Office of Education. Thus, the categories of expenditure (out-of-pocket costs) utilized during the present study and corresponding definitions for each are:

- Room or Housing - includes all expenses paid for the maintenance of the household, including rent, mortgage payments, utility expenses, property taxes, etc.
- Food or Board - includes all expenses for food during the academic year. This may be in the form of average monthly grocery bills or expenditures for food contracts if not primarily eating at home.
- Commuting - the academic year expenditures on commuting to and from school. Includes gas, oil, etc., plus any parking fees associated with attendance at school.
- Medical or Dental - includes expenditures for medical or dental health care plans plus yearly medical, dental and prescription expenses.
- Miscellaneous - includes academic year expenditures for clothing and accessories, personal care, recreation, laundry and drycleaning, books and supplies, repayment of loans, and other miscellaneous items.

In addition, each of the above expenditure categories and student types are stratified by parental income quartiles.

It was generally agreed that the above definitions would provide the most accurate and clear presentation of non-residential postsecondary student expenditures. However, it was also determined that in addition to determining out-of-pocket student expenditures in each of the above categories, an attempt would also be made to collect information on the related economic costs, such as resource usage. For example, there is a need for determining the "costs" to the parents for maintaining a college student living at home, particularly with respect to room and board. Therefore, to the extent possible, data on these items were also collected.

II.2: Search to Identify Potential Data Sources

In order to determine the universe of data pertaining to postsecondary student expenditures, a comprehensive search of the literature was conducted in concert with interviews of individuals known to be knowledgeable in the field of higher education student budgets. Specifically, this phase of the study involved three distinct tasks: (1) a literature search; (2) contact with Federal government personnel; and (3) contact with non-Federal sources. The following sections describe in detail the work conducted during this phase of the study.

II.2.1: Literature Search

The literature search phase comprised (1) a manual review of the literature, and (2) a computerized literature search. The major part of the manual literature search involved visiting various educational libraries (such as the National Institute of Education library) and reviewing journals and other publications to determine the availability and accessibility of relevant sources of data. Specifically, the following journals were searched:

- Education Index
- Social Sciences Citation Index
- Dissertation Abstracts
- American Education Research Journal
- American Economic Review
- Journal of Political Economy
- Journal of Human Resources
- Journal of Student Financial Aid
- Monthly Labor Review

In addition to these journals, the project staff also conducted a detailed review of the literature amassed during Applied Management Sciences' contract with the Office of Education: "Cooperative Education: A National Assessment" (Contract No. OE 300-75-0343).

The results of the manual literature review provided less additional data than was expected. The majority of relevant articles were found to be lacking in estimates of student expenditure items. In most cases, those articles that were identified as being potentially valuable were oriented toward a broad overview of the state-of-the-art of student budgets and budget constructions. The manual literature search was valuable, however, in the development of an enumeration of keywords that were used to conduct the computerized literature search. This search focused on two major data listings:

- Educational Resources Information Center (ERIC)
- National Technical Information Service (NTIS)

Both of these services were searched using the following set of keywords:

- student costs
- family income
- financial needs
- financial problems
- student problems
- private financial support
- commuting students
- student financial needs
- noninstructional student costs
- student expenditures
- housing
- food

The search of NTIS identified no additional sources of data. The ERIC search on the other hand identified several potentially valuable studies. These studies were obtained and reviewed for specific student expenditures. A list of these studies and the analysis performed on each is included in Section III of this report.

Overall, the review of the literature, both manually and by computer, proved to be less helpful than was expected. When studies were found that appeared to be useful, a closer look showed that these studies were in most cases more methodological than empirical. In other words, most of these studies presented problems with, and approaches to, determining non-residential student expenditures, rather than providing relevant data. Contact with Federal government agencies and non-Federal sources, on the other hand, proved to be more fruitful. An overview of these activities is presented in the following two sub-sections.

II.2.2: Contact with Federal Government Agencies

Concurrent with the literature review, the project staff met with and interviewed individuals in the Office of Education, the Bureau of Labor Statistics, the Bureau of the Census, and the Bureau of Health Manpower. A listing of these individuals is presented in Exhibit 1. All Federal officials who were believed to maintain potentially valuable data sources were contacted by telephone, and if data were in fact collected by the agency, all information related to the methodology used and documentation of results was requested and obtained.

Officials of the Office of Education were able to provide detailed information on current and past studies conducted for the purpose of obtaining postsecondary student expenditure data. The immediate identification of these studies provided an initial starting-point for secondary data collection efforts, and ensured that no duplication of effort occurred. One such study conducted by Research Triangle Institute for the Office of Education was a National Longitudinal Study of approximately 22,000 high school students. These students were selected based on geographic area, type of school, and size of school, and were followed for several

EXHIBIT 1: PRINCIPAL FEDERAL GOVERNMENT OFFICIALS CONTACTED DURING TASK I ACTIVITIES

Stephen Baer
Senior Economist
Division of Living Conditions
Bureau of Labor Statistics
Department of Labor

Julia Barton
Economist
Division of Consumer Prices
and Price Indexes
Bureau of Labor Statistics
Department of Labor

Stuart Bernstein
Statistician
Manpower Analysis Branch
Bureau of Health Manpower
Department of Health, Education,
and Welfare

James Byrne
Economist
Veterans Administration

Salvatore Corrallo, Director
Division of Postsecondary Programs
Office of Planning, Budgeting
and Evaluation
Office of Education

Peter Kuch
Office of Planning, Budgeting
and Evaluation
Office of Education
Department of Health, Education,
and Welfare

Jerome Lord, Chief
Open Learning Systems Branch
Office of Education
Department of Health, Education,
and Welfare

John A. Michael
Office of the Assistant
Secretary of Education
National Center for Education
Statistics
Department of Health, Education,
and Welfare

Larry E. Suter, Chief
Education and Social
Stratification Branch
Population Division
Bureau of the Census
U.S. Department of Commerce

years to determine their characteristics at different points in time. Included in the information on students are data on the expenses of those who were in college. In addition, members of the Office of Education were extremely helpful in identifying individuals outside of the Federal government who were involved in similar research efforts.

Contact with personnel at the Bureau of the Census confirmed that the Bureau had collected data for the National Center for Education Statistics on student expenditures in a May 1974 supplement to the Current Population Survey. Details concerning the types of data collected and the methodology used can be found in Section III of this report. Interviews with officials at the Bureau of Labor Statistics, on the other hand, evidenced that no relevant data were collected. Likewise, the Bureau of Health Manpower, while collecting information on student expenditures, reported such data only for allied health and medical students and only total expenses of these students.

II.2.3: Contact with Non-Federal Sources

Many of the individuals identified by Office of Education staff and by Applied Management Sciences were contacted to determine their roles in any relevant data collection efforts. A list of these contacts is shown in Exhibit 2. Most of these persons were not able to provide figures on postsecondary student expenditures; however, many were helpful in identifying other existing data sources, and in providing the project staff with additional methodological approaches for collecting such data. For example, William Bowman of the University of California at Berkeley was not able to provide comprehensive data on student expenditures, but provided valuable insight into the use of student diaries for collecting expense data. Likewise, Lee Hansen of the University of Wisconsin and Joseph Boyd of the Illinois State Scholarship Commission were able to provide valuable contacts for other current data collection efforts.

EXHIBIT 2: PRINCIPAL NON-FEDERAL SOURCES CONTACTED DURING TASK 1 ACTIVITIES

William W. Bowman
Senior Administrative Analyst
Management Analysis Group
Office of the Chancellor
University of California, Berkeley

Joseph D. Boyd
Executive Director
Illinois State Scholarship Commission

Septhen P. Dresch. President
Institute for Demographic and
Economic Studiesi, Inc.
New Haen, Connectituc

Lee Hansen
Professor of Economics and
Educational Policy Studies
Department of Economics
University of Wisconsin

Dwight H. Horch
College Board Programs
Educational Testing Service
College Scholarship Service
College Entrance Examination Board

Carolyn Kostelecky
Midwest Association of Student
Financial Aid Administrators
Iowa City, Iowa

Sylvia Stewart, Director
Commuter Student Clearning House
University of Maryland
College Park, Maryland

John J. Sullivan
Associate Director
Office of Educational Credit
American Council on Education

Alan Wagner
College Entrance Examination Board
Washington, D.C. Office

Dallas Martin, Director
National Association of Student
Financial Aid Administration
Washington, D.C.

Robert Winkler
Student Financial Aid Officer
University of Wisconsin
Madison, Wisconsin

Ben Stough
Associate Director of
Student Financial Aid
University of Texas
Austin, Texas

Larry Matejka
Director of Student Financial Aid
University of Illinois
Chicago, Illinois

Byron Hartley
University Scholarship Office
Indiana University
Bloomington, Indiana

Wallace Douma
Director of Student Financial Aid
University of Wisconsin
Madison, Wisconsin

Martin Leftkovits
Director of Student Financial Aid
State University of New York at Albany
Albany, New York

Mr. Stephen Dresh of the Institute for Demographic and Economic Studies in New Haven, Connecticut provided the project staff with information on a study of 8800 high school students randomly selected on a nationwide basis. This study is similar to the National Longitudinal Study, in that the characteristics of these students were analyzed for the years following their graduation from high school. Included in the items collected during the study were expenditures of those students who continued on to college following their graduation from high school.

Mr. Alan Wagner of the College Entrance Examination Board was contacted to clarify several issues in his study of student expenditures.[1/] While being most helpful in this respect, Mr. Wagner also described characteristics of the National Longitudinal Study (the source of his data) which alerted the project staff to potential hazards of using these data. Thus, in analyzing these data for the present study, accommodations were made to account for any inconsistencies and statistical anomalies which Mr. Wagner had pointed out.

Other individuals contacted during this phase of the study, while not providing specific data on non-residential student expenditures, were helpful in elucidating approaches and methodologies that could be used in constructing a basis for conducting a primary data collection effort. Thus, the time spent with these individuals provided the project staff with indications of characteristics that could be helpful in future research efforts.

[1/] Alan Wagner, "Cutting the Cost to Fit the Cloth: Student Expense Budgets." College Entrance Examination Board, February 1976.

II.3: Acquisition and Assembly of Data

During this phase of project activities, all documents/reports identified as potentially valuable were obtained and prepared for evaluation. Two steps were involved in this process: (1) an initial determination of the existence or non-existence of relevant data; and (2) the assembly of all data into a structured format that would facilitate the evaluation of each expenditure item in each source. The completion of this phase resulted in a documented enumeration of all relevant data items and a basic set of characteristics for use in determining the "best" estimates of non-residential postsecondary student expenditures.

The initial task during this phase of project work involved the determination of the type of material contained in each document. Each of the reports underwent a brief review process in which they were classified into one of two groups: (1) those providing a general overview of problems and/or methodologies with respect to student expenditures; and (2) those which provided estimates of postsecondary student expenditures as defined in the present effort. Documents which fell in the first category generally provided insight into methodologies for collecting student expenditure data, approaches to student budget construction, and potential hazards inherent in the study of student expenses. As such, these documents were valuable from a methodological point of view.

The second category of reports--those providing actual estimates of student expenditures--were examined in greater detail. For each expenditure item reported in a particular document, a cell documentation outline was prepared.[1] A sample of this outline is shown in Exhibit 3 . Thus, for each expenditure item identified, a set of elements characterizing that item was prepared, and the comparison of several estimates in one expenditure category

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[1] The complete documentation of all data items reported in this study (Tables 1-5) appears in Appendix A.

EXHIBIT 3

CELL DOCUMENTATION OUTLINE

Cell Number

Source

Year of Element

Collection Method

Statistical Measure

Measure of Dispersion

Comments (is element nationally representative?, was data manipulated?, etc.)

was greatly facilitated. The documentation of each of these elements thus ensured that the selection or construction of the "best" estimate was not simply a random, subjective process, but one that was based on a structured approach.

II.4: Evaluation of Data Content and Quality

Once cell documentation outlines had been prepared for all identified expenditure items, a structured comparison was made among individual estimates in each expense category in order to derive the "best" estimate of each element. This comparison was based on a predetermined set of review items, including:

- Year of data - which estimate required the least manipulation to obtain expenditures for the 1974-75 academic year?
- Collection method - was the estimate obtained through retrospective surveys, diaries, application forms, etc.? If a survey, was the sample size sufficiently large, and nationally representative? If applications (e.g., for student aid), was the universe of students limited because of family income criteria, etc.?
- Statistical Measure - in what form was the estimate reported--mean, median, mode? What, if any, were the justifications for using one of these three?
- Measure of dispersion - which estimate reported the lowest standard deviation, if reported?

By utilizing these review items, a good picture of the content and quality of each estimate was obtained. Each estimate was then assessed according to the overall quality based on the above review items. The final selection, then, simply involved the selection of that estimate which was determined to exhibit the best overall score, or the construction of an estimate where two sources were equally valid. In cases where only one estimate was identified for a particular expenditure cell, that item was used, and all problems or caveats related to that estimate were documented.

As the "best" estimate for each expenditure category was obtained, it was entered in the matrix of student expenditures, presented in the next section of this report. In addition to the matrix, Section III includes a more detailed discussion of the major relevant sources, and presents the documentation for each element in the matrix.

III. FINDINGS

The previous section of this report described in detail the methodological approach used in conducting the study of non-residential postsecondary student expenditures. The implementation of this approach and resultant findings are the subject of this section. Structurally, Section III is comprised of four parts, including: (1) a comprehensive description and evaluation of all relevant data sources; and (2) the presentation of the matrices of student expenditures for all expense categories;1/ and (4) the analysis of data results.

III.1: Description and Evaluation of Relevant Data Sources

The literature search described in Section II of this report resulted in the identification of 27 sources of data potentially valuable to the present study. These data sources basically fell into three major types: (1) those considered relevant from a methodological point of view, but not containing data; (2) those which contained data on student expenditures but were rejected; and (3) those sources that were used as bases for the matrix of postsecondary student expenditures (see Section III.2). A description of the sources in each of these categories is presented in the following sub-sections.

III.1.1: Sources Containing No Data

Of all the data sources determined to be relevant to the present study, the majority (15) were valuable only from a methodological standpoint. These sources, which are presented in Exhibit 4. were generally helpful in providing an overview of the

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1/ While summary documentation appears with each table, full documentation appears for each table cell in Appendix A.

EXHIBIT 4 : SOURCES CONTAINING NO RELEVANT DATA

Allan, James B., "Student Expense Budgets of Colleges and Universities for the 1972-73 Academic Year." College Scholarship Service. March 1972.

Bowman, William W., Estimating the Costs of College Students. Berkeley: The Chancellor's Management Analysis Group. University of California. June 1975.

————————, "Keeping Up With Student Expense Budgets Using Expenditure Diaries." Journal of Student Financial Aid. Vol. 6, No. 2. May 1976.

————————, "Keeping Up With Student Expenses: Towards Systematic Methods of Computing Student Budgets." Journal of Student Financial Aid. Vol. 5, No. 2. May 1975.

Boyd, Joseph D., and Robert H. Fenske, "A Longitudinal Study of Illinois State Scholarship Commission Monetary Award Recipients. 1967-74." Illinois State Scholarship Commission. June 1975.

College Entrance Examination Board, "Who Is The Independent Student? A Study of the Status and Resources of Independent Students." Prepared for the Office of Planning, Budgeting and Evaluation, Office of Education, Department of Health, Education, and Welfare. October 1974.

College Scholarship Service, CSS Need Analysis: Theory and Computation Procedures for the 1975-76 PCS and SFS. 1976

Ferrin, Richard I., "Student Budgets and Aid Awarded In Southwestern Colleges." College Entrance Examination Board. Higher Education Surveys, Report No. 5. April 1971.

Halstead, D. Kent. "Higher Education Prices and Price Indexes." U.S. Department of Health, Education, and Welfare. Office of Education. 1975.

————————, "Higher Education Prices and Price Indexes." 1975 Supplement." U.S. Department of Health, Education, and Welfare. Office of Education. 1976.

Horch, Dwight H., "A Description of Families Who Filed Parents' Confidential Statements With the College Scholarship Service During 1969-70." College Scholarship Service. June 1971.

Keppel, Francis, National Task Force on Student Aid Problems. Final Report. Brookdale, California. 1975.

Midwest Association of Student Financial Aid Administrators/U.S. Office of Education Working Papers. Delivered at the Invitational Student Expense Budget Conference. Evanston, Illinois. April 5, 6, 7, 1976.

Solomon, Lewis C. and Paul J. Taubman, Does College Matter? Some Evidence on the Impact of Higher Education. Academic Press.

U.S. Bureau of the Census, "Social and Economic Characteristics of Students: October 1973." Current Population Reports. Series P-20, No. 273. November 1974.

state-of-the-art of student expenditures, particularly with respect to methodologies for primary data collection efforts. However, sources in this category are characterized by the lack of specific data on postsecondary student expenditures, and as such were of little value in activities aimed at the identification of such expenditures. Thus, the review of these sources was limited to a cursory analysis of their contents.

These sources nevertheless would prove extremely valuable in any primary data collection effort. For example, several articles (e.g., Bowman) examine the use of expenditure diaries in primary data collection efforts, and will be useful in the design of the student expenditure diary. In addition, these articles provide descriptions of potential problem areas and hazards that should be taken into account before initiation of a survey effort.

III.1.2: Sources Containing Data But Not Included in Study Results

Sources determined to have data relevant to the present effort were closely examined in terms of data content and quality. The purpose of this section is to describe the implementation of the approach to evaluating each data source as specified in Section II. The description presented here is a more general overview of the data source itself, rather than an evaluation of the individual elements contained in that source. This sub-section examines those sources which were not included in any of the tables presented later. Exhibit 5 lists those sources containing data but which were not used in the final presentation of the matrix.

Consumer Expenditure Survey (CES)

The first data source which initially appeared to be useful to the present effort was the 1972-73 Consumer Expenditure Survey (CES). During the literature search, numerous references were made to the CES as a source of student budget information.

EXHIBIT 5: SOURCES CONTAINING DATA BUT NOT INCLUDED IN STUDY RESULTS

Suchar, Elizabeth W., et al. "Student Expenses at Postsecondary Institutions, 1974-75." College Scholarship Service. 1974.

Suchar, Elizabeth W., Stephen H. Ivens and Edmund C. Jacobsen, "Student Expenses at Postsecondary Institutions. 1976-77." College Scholarship Service. 1976.

U.S. Department of Agriculture, Family Food Plans, September 1974.

U.S. Department of Labor, 1972-73 Consumer Expenditure Survey Data File.

U.S. Department of Labor, Urban Family Budgets, Autumn 1974.

U.S. Bureau of the Census, May 1974 Supplement to the Current Population Survey.

Van Dusen, William D., E. Jacobsen and A. Wagner, "Analysis of Student Costs of Attendance." Prepared for the Office of Planning, Budgeting and Evaluation, Office of Education, Department of Health, Education, and Welfare. December 1974.

Wagner, Alan, "Cutting the Coat to Fit the Cloth: Student Expense Budgets." Mimeographed paper prepared for the College Scholarship Service. College Entrance Examination Board. Washington, D.C. 1976.

However, upon examination of the CES information, it was determined that very little if any of the budget information was applicable to students. The purpose of the CES is principally to obtain information regarding the expenditure patterns of families and thus providing for revisions in the market basket of goods which is used in the computation of Consumer Price Indexes. Therefore, the CES focuses on individual consumer units, or families. No dissaggregation is available of the expenditures by individual family members, except for the family head. Therefore, dependent students living at home could not be identified. Dependent students living away from home are also considered part of the family consuming unit and no breakdown of their expenditures are available.

The only category of students for which any information from the CES is applicable is independent students: one person families whose "head" is under 25. Currently, data for this group are not available from the Bureau of Labor Statistics, although it will be derivable from the public use tape for the CES to be released in March 1977. Even if, however, these data were readily available, there are numerous problems associated with their use. First, the information obtained would include only estimates of food, medical care, and housing with no data on transportation or miscellaneous expenditures. Second, the data would only be relevant for independent students who live alone. Third, the sample studied would be extremely small since one person families whose "head" is under 25 make up less than 4 percent of the CES sample. Finally, and most important, there is no a priori reason to assume that this group of individuals, who happen to be in a similar age category as students, necessarily have the same spending habits as students.

Current Population Survey (CPS)

Another data source which was initially thought to have potential value was the May 1974 supplement to the Current Population Survey conducted by the Bureau of the Census. This supplement dealt with postsecondary student enrollment, and included questions pertaining to students' expenditures by financial dependency and parental income. The estimates reported in the May 1974 supplement were based on data obtained from drop-off questionnaires that were given to households which had indicated on a supplement to the October 1973 Current Population Survey the presence in some form of postsecondary schooling of at least one member of the household. The Current Population Survey sample is spread over 461 areas comprising 923 counties and independent cities with covering in each of the 50 states and the District of Columbia. Thus, the sample for the survey was both random and nationally representative of the population as a whole. This was in sharp contrast to many of the other sources which tended to be limited to students applying for financial aid.

Investigation of this data source, however, revealed some need for further consideration. First, while this survey is based on a sample which is representative of the U.S. population, it is not necessarily nationally representative of the student population. No stratification was provided for by type of institution attended or by the setting (urban or rural) of the schools. Moreover, when the sample is narrowed to nonresidential students falling into the three categories proposed, two of the student types were represented by less than 375 respondents. In sum, the sample is neither large enough nor sufficiently stratified to give reliable national estimates of student expenditures.

A second series of issues arise when examining the expenditure categories for which data are reported. Medical and dental care costs are not recorded; food and housing expenditures are combined; and no information is collected which would allow one to compute resource usage costs for dependent students living at home. Finally, while parental income is asked for, it is recorded only in income ranges and not quartiles or individual income levels. This means, of course, that the separation of expenditures by parental income quartile is not straightforward and is subject to considerable error.

The CPS data file will not be available until March 1977 at the earliest, but some tabulations of the file have been received from the National Center for Education Statistics. The tabulations received provide some of the useful information contained in the file that is relative to the study at hand. No doubt additional useful information can be obtained by processing the basic file, but the extent of the new information thus obtainable is open to serious question. In light of these facts, it did not appear worthwhile to delay project work solely for the purpose of generating our set of tabulations from the file. However, if and when the file does become available, it would be useful to generate such tabulations and to compare them to those based on data collected as part of a primary data collection effort.

Urban Family Budgets (BLS)

The Bureau of Labor Statistics (BLS) regularly publishes information on three levels of urban family budgets (low, moderate, and high). These budgets are estimated based on the price of a certain set of budget items. The items included were selected based on the results of the 1960-61 CES. The two consuming units for which the budget data are updated yearly via the CPI are a 4-person family and a retired couple. Because these expenditures relate to those of families and not students, they are of limited usefulness to this study. One method of obtaining estimates that more closely approximate the budget of students is using the Bureau of Labor Statistics age equivalency ratios. BLS provides ratios that can be applied to the family budgets to account for various family sizes and ages of the family head. The closest approximation of the student age category is however under 35 years old. If one uses the equivalency ratio for a 1 person family whose head is under 35 years of age, one still encounters the caveats discussed earlier in the discussion of the CES estimates of a 1 person family whose head is under 25 years of age. Moreover, in the case of the equivalency ratios, Bureau of Labor Statistics personnel emphasized the questionable validity of the resulting estimates given that they are based on the 1960-61 CES.

One area where the urban family budget information was deemed useful was establishing the relationship between food versus housing expenditures for the dependent student living at home. Because the estimates of student expenditures (discussed later) ultimately used provided only a combined estimate for food and housing, it was necessary to devise some method of disaggregating them. The distribution of expenditures of the four-person family between housing and food was felt to be appropriate for separating the food and housing expenditures of the dependent student living at home.

National Longitudinal Study (Wagner)

A source which reported actual expenditures by post-secondary students was that reported by Alan Wagner of the College Entrance Examination Board. This source was useful not only in providing estimates of student expenditures, but was useful also from a methodological point of view. The estimates reported by Wagner were based on a 20 percent sample of tabulations from the National Longitudinal Study of 1972. All data reported are average expenditures by full-time first-year students who were part of the NLS. These students were selected during high school by the National Center for Education Statistics by using a stratified two-stage national probability sample, with schools as first-stage sampling units and students as second-stage units. Included among the estimates are expenditures of dependent students living at home and independent students living off-campus for room and board, books and supplies, transportation, other miscellaneous items, as well as total non-tuition costs. In addition, separate estimates are provided on student expenditures by income category.

The Wagner tabulations of NLS data were initially considered to be one of the most valuable sources of data on postsecondary student expenditures. Several subsequent events, however, placed limits on the usefulness of this data source. First, the Wagner tabulations report no estimates of expenditures by dependent students living off-campus, one of the three student types needed for the present effort. In addition, Applied Management Sciences was able to obtain direct access to the NLS data file through the cooperation of the National Center for Education Statistics. Instead of tabulations based upon only a 20 percent sample, Applied Management Sciences calculated similar expenditure items based on 100 percent of the NLS data file, thus increasing the reliability of the estimates. For these reasons, the Wagner study was determined to be of limited value.

Student Resource Survey

Another source of data which identified non-residential postsecondary student expenditures was that developed by William Van Dusen, Edmund Jacobsen, and Alan Wagner for the Office of Planning, Budgeting and Evaluation of the U.S. Office of Education. The data used in the study were collected by the College Entrance Examination Board during 1971-72 and 1972-73 using the Student Resource Survey, which was developed to aid in the determination of procedures used by students in financing the costs of postsecondary education. This survey was administered both directly to students and by mail.

The actual expense data were collected from a sample of 88,416 undergraduate students in California, Oregon, Washington and Pennsylvania. The selection of the students was stratified by (1) the type and control of institution in which they were enrolled; (2) enrollment status (full- or part-time); and (3) the state in which the institution was located. The major scope of the survey was the identification of student expenditures by the type and control of institutions; that is, public and private two and four-year institutions. Two types of students amearable to the definitions as determined for use in the present study are reported in the study: (1) dependent students living at home; and (2) independent students. In addition, costs of attendance are reported for room and board, and other expenses.

The major problem associated with the Van Dusen et. al. study which limits its usefulness in the present effort is its lack of a national perspective. No attempt was made to extrapolate the data collected from only four states to obtain national estimates. Since the present study was designed to collect national estimates of postsecondary student expenditures, the Van Dusen study provided less valuable information than was originally believed. In addition, all expenditures in the study were reported by institution type, thus necessitating the development of a weighting scheme to obtain a single estimate. The weights developed were based on the proportions of each institutional type as a percentage of the total number of institutions of higher education in the U.S., which may have been inaccurate when applied to a data base which was not national in scope. Thus, the Van Dusen study's estimates were considered to be inappropriate for the present effort.

College Scholarship Service

Two other studies were initially believed to be useful in providing estimates of non-residential postsecondary student expenditures. Both were conducted by the College Scholarship Service under the direction of Elizabeth W. Suchar, and were designed to assist postsecondary institutions, States, and Federal agencies determining the financial needs of individual students. The 1974-75 study reports expenditure estimates for tuition, room and board, transportation, personal expenses, and totals for dependent students living at home. The 1976-77 study reports books and supplies expenditures as well, and includes estimates for dependent students living off-campus and indendent students. The mean expenditures in both studies are reported by institutional type (i.e., public and private two-and four-year and proprietary institutions), and are obtained from all institutions of higher education in the 50 states and the District of Columbia.

Although both studies are nationally representative and report expenditures for all student types being examined in the present study, there are limitations associated with their use. These estimates were provided by the institutions themselves, and are figures typically used by the institutions in determining students' financial needs. As such, they are estimates which financial aid offices have developed and are not necessarily based on actual costs to the students, and may not accurately reflect individual students' typical expenses. Further, in order to determine the methodology used by individual schools in estimating such expenditures, it would be necessary to contact each individual school (over 2,500) that reported statement expenditures.

Given that contacting over 2,500 postsecondary institutions was beyond the scope of this study, Applied Management Sciences decided to inquire at a few large universities to determine the methods used at each. This effort was not intended to be a survey of all the methodologies used, but merely to provide some indication of the approaches taken by the Student Financial Aid Administrators.

The results of these inquiries indicated that the methods used at each school to calculate budget varied widely. For example, at one large university the Associate Director of Student Financial Aid indicated that the principal source of their student budget information was the BLS low cost budget for urban families in their local area. On the other hand, at another large university, a variety of techniques were used to complete each item. For example, housing costs were estimated through a survey of landlords in the area as well as data collected from student expenditure surveys which were conducted every four years. It should be noted, however, that the Director of Student Financial Aid at that same school stated that there were problems with the expenses reported by students because they could not recall their actual expenditures and would simply guess at the amount. Furthermore, the Director states that no good estimates were available for the expenditures of "commuter" students. Another Director of Student Financial Aid at a large university summed up the situation by saying that a "hodge podge" of methods are employed by student financial aid administrators to estimate student budgets. Also mentioned was the fact that time constraints placed on student financial aid administrators often led to their reporting simply the maximum amount of aid allowable through Federal Programs for each item in the student budget.

It would appear from this cursory examination of the methodology employed by student financial aid officers that techniques used to construct student budgets vary widely, and the extent to which the estimates obtained from the financial aid officers relate explicitly to actual student expenditures cannot be readily assessed. Therefore, these estimates from the CSS are not used in the matrices presented later in this report. The 1976-77 CSS estimates are, however, later compared to the data compiled in this study (Tables 1-5).

USDA Food Plans

The U.S. Department of Agriculture (USDA) provides estimates of food costs for individuals based on the nutritional needs of persons in various age-sex categories. Four different food plans (thrifty, low cost, moderate, liberal) are estimated in order to account for varying consumption priorities. While the information available from the USDA does not provide a measure of actual food expenditures by the student types desired, it does provide estimates of the minimum costs necessary to feed persons of approximately college age. Thus, the estimates derived from this source cannot be used directly in our final matrice of "actual" expenditures, but they can be used for comparative purposes. Later in this report (Section IV), estimates based on USDA food plans are compared with the food estimates shown in Tables 1-5 of this report.

III.1.3: Sources Containing Relevant Data

The detailed review and analysis of all data sources resulted in the identification of four sources that contained data which were used on the bases for the estimates presented in the matrix of postsecondary student expenditures. These sources are:

(1) "Expense Budgets of Self-Supporting Students 1967-68 and 1968-69," by Dwight H. Horch.

(2) "How College Students Finance Their Education: A National Survey of the Educational Interests, Aspirations, and Finances of College Sophomores," by Dwight H. Horch and Elizabeth W. Haven.

(3) "Income and Expenses of Students Enrolled in Postsecondary Schools: October. 1973." U.S. Census Bureau.

(4) Unpublished tabulations of the National Longitudinal Study of 1972 by Applied Management Sciences.

Each of the four sources is nationally representative of postsecondary students, and each specifies expenditures by such students for categories as defined in the present study. The following paragraphs describe in detail the scope and structure of each of these studies, including characteristics which influenced their selection as well as drawbacks which in any way limit the usefulness of the sources.

National Longitudinal Study

By far, the most extensively utilized source of data for obtaining estimates of non-residential postsecondary student expenditures was the National Longitudinal Study of 1972, conducted by the Research Triangle Institute for the National Center for Education Statistics. In general, the structure of the NLS involved surveying a national sample of high school students who were seniors in 1972, and tracing their activities after graduation through the use of two follow-up questionnaires administered in the Fall of 1973 and the Fall of 1974.

The initial selection of 22,000 high school students was based on a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. The universe from which this sample was selected consisted of all 1972 high school seniors enrolled in all public, private, and church-affiliated schools in the 50 states and the District of Columbia. The sampling scheme for selecting the schools consisted of 600 final stratifications based on criteria such as: (1) type of control (public,non-public); (2) size of school; (3) geographic location; (4) minority enrollment; (5) urbanicity; (6) income level in the area, and other variables. The selection of the sample in this manner thus ensures the national representativeness of the study in terms of the high school student population used as the base. However, it cannot necessarily be assumed that all sub-sample of those high school students who went to college is nationally representative of the total college student population.

The use of the first follow-up of the NLS sample permitted the calculation of estimates as defined by the scope of the present study. The NLS first-year follow-up (consisting of 2,448 college freshmen) contained information for all three types of students being considered; dependent students living at home (1,741) dependent students living off-campus (358), and independent students living off-campus (349). The expenditure categories reported in the NLS included room and board, transportation, books and supplies, and other miscellaneous expenses. Most importantly, it was possible to obtain the expenditures reported above by parental income for each student type. Thus, the NLS data were extensively used in the calculation of student expenditures as defined for purposes of the present study.

The second-year follow-up from the NLS, however, was tabulated but not used in this study for several reasons. First, the questions asked in the second follow-up were worded slightly different and asked in a different sequence than in the first-year follow-up.

For example, in the first-year questionnaire the respondents were asked, "About how much did training or schooling cost during the first year after high school...?" In the second-year follow-up, students were asked, "... how much did it cost you to live and go to school?" Furthermore, in the first-year follow-up "other expenses" were defined for the respondents as "Other related school expenses (clothing, laundry, etc.)", while in the second year follow-up, they were defined as 'All other expenses: medical, dental expenses, debt payments, insurance, taxes, child care, etc." These types of changes in the questions asked tend to create a discontinuity between the follow-up surveys since they provoke different responses from persons who may have actually incurred the same expenditures in both years.

Second, the sample size of the second-year follow-up was only about half that of the first-year follow-up. When the three student types were selected from among the second-year respondents, only a total of 1,266 were found, while 2,448 students were located among the first-year follow-up respondents. Likewise, the standard deviations of the estimates obtained in the second-year follow-up were substantially higher than those of the first-year follow-up survey. For example, the second-year follow-up estimated the cost of books and supplies for dependent students not living at home at $620 with a standard deviation of $6,026, while the first-year follow-up showed $174 as the mean expenditure with a standard deviation of $146. Furthermore, some of the estimates obtained from the second-year follow-up appeared completely improbable. One such estimate is the mean expenditure of $2,033 reported for books and supplies for dependent students not living at home whose parental income was in the upper middle quartile. Finally, the expenditures reported in second-year follow-up were neither consistently higher nor lower than the first-year estimates, but rather varied widely from the first-year follow-up estimates.

The National Longitudinal Study (first-year follow-up) was the most useful data source obtained during Task 1 because it contained information on student expenditures and parental income. However, even with these data there are several problems which arise when estimating student expenditures by five separate categories. First, expenditures for room and board are reported as one estimate, thus necessitating the use of an allocation methodology as described in Section III.2 of this report. Although the estimates obtained from the allocation procedure may provide reasonable approximations of separate food and housing expenses, these figures are certainly not as accurate as if individual expenditures were obtained. Secondly, the NLS data does not provide estimates for all the expenditure categories defined for the purpose of this study, and thus the total expenditures by postsecondary students may underestimate the actual costs of maintaining items such as clothing, laundry, and drycleaning, and debt repayment are not sufficiently represented. Finally, no breakdown of transportation costs between travel to and from school and trips home is provided in the NLS data.

The major deficiency of the NLS data base appears in the estimates of expenditures by independent students. Since the original sample was obtained from high school students in 1972, it can be assumed that the number of individuals attending college in 1973 or 1974 who are completely independent of their parents will be minimal. This is borne out by the fact that there are only about 350 students in the NLS sample who fall into this category. For this reason, the use of another source of data for expenditures by independent students was considered appropriate.

Despite the several problems inherent in the National Longitudinal Study, it still remains the most comprehensive source of data for postsecondary student expenditures available to date. However, potential users of the data should be aware of the deficiencies of the data, and should be especially careful in using the estimates obtained from the NLS as a basis either for policy formulation or evaluation.

Horch

The second source of data which provided usable estimates of student expenditures was that developed by Dwight H. Horch of the College Scholarship Service. The impetus of this study focused on the expenses of independent students attending postsecondary institutions, and was developed for the purpose of determining the financial needs of such students.

The data for this study were based on a random sample of 9,913 out of 30,000 independent students who submitted Students' Confidential Statements to the College Scholarship Service in 1968-69. Of the 9,913 students, 2,229 were single males and 2,237 were single females. It was initially thought that the estimates reported in the Horch study would not be nationally representative, since the sample was based only on persons who submitted Student Confidential Statements. However, further investigation revealed that this study did in fact appear to be nationally representative. As pointed out in the Horch study, the mean maintenance expenditures for single persons submitting Student Confidential Statements in 1968 was $2,265; the mean maintenance expenditure for persons aged 20-35 years as shown by the USDA moderate level budgets in 1968 was $2,395. The high degree of similarity between the SCS mean maintenance expenses and the USDA budgets indicates that the expenditures as reported in the study by the independent students are in fact quite reasonable. On this basis, the estimates reported in the Horch study appeared to be representative of this segment of the student population. However, the possibility of some bias in the study cannot be ruled out.

The major value of the Horch study was in the detailed breakdown of expenditures. This was the only data source which provided separate estimates of food and housing expenditures. In addition, the study also estimated postsecondary student expenditures for clothing, laundry and drycleaning, transportation, medical and dental care, debt repayment, and other miscellaneous items. In addition, the estimate of total expenditures was not simply the aggregation of all expense items, but was independently derived.

The only expenditure item needed for the present study which was not provided was expenses for books and supplies. Further, the transportation estimate could not be broken down into costs of traveling to and from school and trips home. Nevertheless, the overall breakdowns of student expenditure items was most valuable, and the Horch study remains one of the best sources of data identified during this study.

Horch and Haven

The third source which provided data used in the final matrix of student expenditures was that developed by Dwight Horch and Elizabeth W. Haven of the College Scholarship Service. The major thrust of this study was the determination of how students finance their college education, with particular emphasis on the role of financial assistance. Initially, contact was made with 8,618 students who were college freshmen in 1968. These students were among 19,612 high school students who were part of the fall 1966 norming of the Preliminary Scholastic Aptitude Test (PSAT), and who were verified as enrolled in a postsecondary institution in the fall of 1968. Of the 8,618 students who were contacted, 3,363 usable returns were obtained. This sample was representative of the group contacted with respect to geographical location and type of high school attended. One hundred and thirty-five married students were excluded from the study.

The Horch and Haven study reported student expenditures for dependent students living at home, and included expense categories such as room and board, medical and dental care, transportation, clothing, laundry and drycleaning, debt repayment and other miscellaneous expenses. Books and supplies expenditures were not reported separately, but were lumped with tuition and fees. In addition, room and board expenditures were reported as one estimate, thus necessitating the use of the allocation process described in Section III.2 of this report.

The major drawback of the Horch and Haven study in terms of the present effort is the relatively small sample size upon which the estimates are based. Although the overall sample includes over 3,000 students, only 800 of these fall into the category of dependent students living at home. This fact, combined with the rather large standard deviations reported, limits the reliability of the estimates.

Census Bureau

The last source of data which was used in the matrix of student expenditures was the Bureau of the Census publication on the income and expenses of students enrolled in postsecondary schools in October 1973. The estimates of student expenditures were based on drop-off questionnaires given to households which had indicated in a supplement to the Current Population Survey the presence in some form of postsecondary schooling of at least one member of the household. This publication should not be confused with the May 1974 supplement to the Current Population Survey which was discussed in Section II.2.2 of this report.

The Census Bureau report estimated educational expenditures by financially independent and financially dependent students. However, in the category of financially dependent students, there was no way to determine whether these students were living at home or off-campus. Therefore, estimates for this student type were excluded from any further analysis. For financially independent students, estimates were reported for tuition and fees, books and supplies, and transportation expenses. The principal value of this report is in the estimate of transportation expenditures. This was the only source of data obtained which specifically addressed the cost of transportation to and from school.

One major problem with the Census Bureau data is that the expenditures reported for each category are median expenses rather than means. However, since this was the only source that identified commuting costs, the median expenditure was reported in the matrix of student expenditures. In addition, none of the data reported in the publication were associated with parental income, which limited their usefulness. Further, many of the expenditure categories needed for the present study were not included in the report.

III.2: Matrix of Postsecondary Student Expenditures

An important conclusion that can be discerned from the above discussion of individual data sources is that, although a reasonable estimate was obtained for each cell in the matrix of student expenditures, none of the studies used in calculating these estimates was specifically designed to collect data which the present study was required to collect. For this reason, the problems associated with the use of such data for purposes of the present effort were expected and accounted for, and the reader should keep this in mind when examining the estimates presented in this section. Included here are five matrices of student expenditures, defined as follows:

- Table 1 - the mean expenditures of students by expense category and financial dependenc.
- Table 2 - the mean expenditures of single dependent students living at home by expense category and parental income quartiles.
- Table 3 - the mean expenditures of single dependent students living off-campus by expense category and parental income quartile.
- Table 4 - the mean expenditures of single independent students living off-campus by expense category and parental income quartiles.
- Table 5 - the mean expenditures of single students for miscellaneous items by expense category and financial dependence.

All of the data reported in the five tables which follow are estimates of expenditures for the 1974-75 academic year (September through May).

Before presenting the tables, a few comments should be made concerning the general structure and format of the estimates. First, the estimates presented in each matrix are the result of an in-depth review and analysis of estimates obtained from various data sources. For each estimate, a cell documentation outline was prepared which enumerated a set of items characterizing that estimate. Thus, the initial set of tables contained several estimates for each expenditure category and student type in the matrix. By examining the set of estimates within each cell based upon the predetermined set of criteria, the estimate considered most accurate was either chosen or constructed. The results of this process are the estimates presented in each Table.

Tables 2, 3, and 4 report student expenditures by parental income quartiles. These quartiles were determined from data obtained on student expenditures by ten ranges of income as reported in the NLS. The conversion of these income ranges into quartiles required several steps. Since a total of 344,977[1] students were represented by the NLS data base, each quartile contained 86,244 students. Given this information, it was then necessary to determine the precise income cut-off points which divided the sample into four equal parts. To accomplish this, it was assumed that within each range of income, the number of students in that range was evenly distributed. It was necessary to make this assumption since the precise dollar income of each student's parents was not reported. For example, in the NLS data, there were 8,679 students who reported parental income of between $0 and $3,000. Assuming an even distribution, each student then represents income increments of .345. Thus, the first quartile was obtained by continuing to sum the number of students in each of the first five income ranges until a total of 86,244 students was reached. The income level associated with this number of students represented the cut-off point for the first quartile. Thus, the first income quartile included students whose parental income ranged from $0 to $9,128. Since this figure falls in income range 5 ($9,000 to $10,499), part of the students are in income quartile 1 and the rest are in income quartile 2. This procedure was repeated to obtain the other three cut-off points. The income quartiles were then inflated from 1972 to 1974 using the usual weekly earnings of wage and salary workers as reported by the Bureau of Labor Statistics.

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[1] This figure represents the weighted sample size of students, extrapolated from the original sample of 2,448 students.

For each of the estimates presented in the tables, the standard deviation association with that estimate is shown in parentheses below each figure. Brief documentation of all the items in each of the five matrices follows each table. (Complete documentation for each estimate is presented in Appendix A.) This summary documentation contains the cell number, source, and base year, for each element as well as a note about any adjustments made to the original estimate. More specifically, the cell number, source, and base year are defined as follows:

- Cell Number - this number provides the reader with a quick reference to the location of the estimate in the appropriate table. The Roman numeral refers to the row, the Arabic number refers to the column. For example, in the documentation for Table 1, cell number I-2 refers to the mean expenditures for food by dependent students living at home. Similarly, cell number III-4 refers to medical or dental expenditures by independent students living off-campus.
- Source - these numbers refer to the data source from which the final estimate was obtained or from which other estimates for the same cell were obtained. The eight sources listed below were identified as containing relevant estimates of student expenditures. The sources marked with an asterisk "*" were those from which the final estimates were selected.

(1) Wagner, Alan, "Cutting the Coat to Fit the Cloth: Student Expense Budgets." Mimeographed paper prepared for the College Scholarship Service. College Entrance Examination Board. Washington, D.C. 1976.

*(2) Horch, Dwight H., "Expense Budgets of Self-Supporting Students, 1967-68 and 1963-69." College Scholarship Service. March 1971.

*(3) Haven, Elizabeth W. and Dwight H. Horch, "How College Students Finance Their Education: A National Survey of the Educational Interests, Aspirations, and Finances of College Sophomores in 1969-70." College Scholarship Service. January 1973.

*(4) U.S. Bureau of the Census, "Income and Expenses of Students Enrolled in Postsecondary Schools: October 1973." Current Population Reports. Series P-20, No. 281. June 1975.

(5) Suchar, Elizabeth W., Stephen H. Ivens and Edmund C. Jacobsen, "Student Expenses at Postsecondary Institutions, 1976-77." College Scholarship Service. 1976.

(6) Van Dusen, William D., E. Jacobsen and A. Wagner, "Analysis of Student Costs of Attendance." Prepared for the Office of Planning, Budgeting and Evaluation, Office of Education, Department of Health, Education and Welfare. December 1974.

*(7) Applied Management Sciences, unpublished tabulations from the National Longitudinal Study of 1972.

(8) Suchar, Elizabeth W., et. al., "Student Expenses at Postsecondary Institutions, 1974-75. College Scholarship Service. 1974.

- Base Year of Element - the year reported here is the year in which the data was originally reported, including whether this was an academic year, a fiscal year, or a calendar year.

TABLE 1. MEAN ESTIMATED EXPENDITURES[1] OF SINGLE STUDENTS BY EXPENSE CATEGORY AND FINANCIAL DEPENDENCE, ACADEMIC YEAR 1974-75.

Type of Student	Mean Expenditures (Standard Deviation)					(6) Total[2]
	(1) Housing or Room	(2) Food or Board	(3) Transportation to and from school	(4) Medical or Dental	(5) Miscellaneous	
I. Dependent, living at home	\$146 (218)	\$171 (251)	\$128 (191)	\$ 66 (129)	\$215 (209)	\$ 536 (783)
II. Dependent, not living at home	575 (305)	502 (306)	118[3] (76)	66 (129)	410 (320)	1603 (898)
III. Independent, not living at home	819 (647)	720 (835)	118[3] (76)	124 (246)	627 (865)	2476 (2426)

Note: The above estimates were derived from several different sources; therefore, comparisons among estimates should be made with caution. In addition, it should be noted that when the standard deviations are applied to the respective means, the result in many cases is a negative number. This is not a meaningful result because the distribution surrounding the mean is skewed to the right.

[1] Expenditures refer to actual "out-of-pocket" costs paid by the student.

[2] Total expenditures are independently derived estimates and may not equal the sum of columns 1-5.

[3] Estimate is the median expenditure for transportation to and from school.

TABLE 1 - NOTES AND DOCUMENTATION

A more detailed characterization of each estimate can be found in Appendix A to this report. Due to the use of numerous data sources to construct the tables, extreme caution should be exercised in using these estimates for decision-making or analysis purposes.

Cell Documentation

I-1: Horch and Haven (3). Base year 1969-70 Academic year. Only one estimate of room and board was reported, and was apportioned by using the Consumer Expenditure Survey's middle income budget for a family of four (47.7% for housing and 52.3% for food). Estimate was inflated using the housing component of the CPI.

I-2: Horch and Haven (3). See documentation for I-1, above. Estimate was inflated using the food component of the CPI.

I-3: National Longitudinal Study (7). Base year 1972-73 academic year. Estimate was inflated using the transportation component of the CPI.

I-4: Horch and Haven (3). Base year 1969-70 academic year. Estimate was inflated using the medical care component of the CPI.

I-5: National Longitudinal Study (7). See documentation for I-3, above. Estimate was inflated using the overall CPI.

I-6: National Longitudinal Study (7). See documentation for I-5, above.

II-1: National Longitudinal Study (7). Base year 1972-73 academic year. Only one estimate for room and board, and was apportioned using estimates obtained in the Horch (2) study (55% for housing, 45% for food). See documentation for III-1. Estimate was inflated using the housing component of the CPI.

II-2: National Longitudinal Study (7). See documentation for II-1, above. Estimate was inflated using the food component of the CPI.

II-3: Bureau of the Census (4). Base year 1973-74 fiscal year. Estimate was inflated using the transportation component of the CPI.

II-4: Horch and Haven (3). See documentation for I-4, above.

II-5: National Longitudinal Study (7). See documentation for I-5, above.

II-6: National Longitudinal Study (7). See documentation for I-6, above.

III-1: Horch (2). Base year 1968-69 fiscal year. Estimate was apportioned to transpose the fiscal year estimate to an academic year (assuming an even distribution of expenditures throughout the year), and was inflated using the housing component of the CPI.

III-2: Horch (2). See documentation for III-1, above. Estimate was inflated using the food component of the CPI.

III-3. Bureau of the Census (4). Base year 1973-74 fiscal year. Estimate was inflated using the transportation component of the CPI.

III-4. Horch (2). Base year 1968-69 fiscal year. Estimate was inflated using the medical care component of the CPI.

III-5. Horch (2). See documentation for III-4. Estimate was inflated using the overall CPI.

III-6. Horch (2). See documentation for III-5.

TABLE 2. MEAN ESTIMATED EXPENDITURES[1] OF SINGLE, DEPENDENT STUDENTS LIVING AT HOME BY EXPENSE CATEGORY AND PARENTAL INCOME, ACADEMIC YEAR 1974-75.

Parental Income	Mean Expenditures (Standard Deviation)					
	(1) Housing or Room	(2) Food or Board	(3) Transportation (Commuting Costs)	(4) Medical or Dental	(5) Miscellaneous	(6) Total[2]
I. Upper Quartile ($20,448+)	$134 (293)	$158 (346)	$133 (207)	$75 (147)	$210 (200)	$613 (754)
II. Upper Middle Quartile ($14,636-$20,447)	68 (183)	80 (217)	117 (171)	57 (111)	206 (235)	462 (605)
III. Lower Middle Quartile ($10,714-$14,635)	105 (425)	123 (499)	114 (166)	68 (133)	212 (199)	549 (1049)
IV. Lower Quartile ($0-$10,713)	76 (223)	87 (259)	149 (218)	67 (136)	231 (196)	541 (633)

Note: The above estimates were derived from several different sources; therefore, comparisons among estimates should be made with caution. In addition, it should be noted that when the standard deviations are applied to the respective means, the result in many cases is a negative number. This is not a meaningful result because the distribution surrounding the mean is skewed to the right.

[1] Expenditures refer to actual "out-of-pocket" costs paid by the student.

[2] Total expenditures are independently derived estimates and may not equal the sum of columns 1-5.

TABLE 2 - NOTES AND DOCUMENTATION

A more detailed characterization of each estimate can be found in Appendix A to this report. Due to the use of numerous data sources to construct the tables, extreme caution should be exercised in using these estimates fro decision-making or analysis purposes.

Column 1:	National Longitudinal Study (7). Base year 1972-73 academic year. Estimates were inflated using the housing component of the CPI.
Column 2:	National Longitudinal Study (7). Base year 1972-73 academic year. Estimates were inflated using the food component of the CPI.
Column 3:	National Longitudinal Study (7). Base year 1972-73 academic year. Estimates were inflated using the transportation component of the CPI.
Column 4:	Horch and Haven (3). Base year 1969-70 academic year. Estimates were inflated using the medical care component of the CPI.
Column 5:	National Longitudinal Study (7). Base year 1972-73 academic year. Estimates were inflated using the overall CPI.
Column 6:	National Longitudinal Study (7). See documentation for Column 5, above.

TABLE 3. MEAN ESTIMATED EXPENDITURES[1/] OF SINGLE, DEPENDENT STUDENTS NOT LIVING AT HOME BY EXPI
CATEGORY AND PARENTAL INCOME, ACADEMIC YEAR 1974-75.

Parental Income	Mean Expenditures (Standard Deviation)					
	(1) Housing or Room	(2) Food or Board	(3) Transportation (Commuting Costs)	(4) Medical or Dental	(5) Miscellaneous	(6) Total[2/]
I. Upper Quartile ($20,448+)	$594 (339)	$518 (295)	$119[3/] (76)	$67 (130)	$400 (312)	$1621 (940)
II. Upper Middle Quartile ($14,636-$20,447)	537 (333)	469 (291)	112[3/] (72)	63 (122)	416 (308)	1528 (856)
III. Lower Middle Quartile ($10,714-$14,635)	561 (314)	489 (274)	119[3/] (76)	66 (127)	392 (255)	1613 (694)
IV. Lower Quartile ($0-$10,713)	606 (430)	529 (376)	124[3/] (79)	69 (134)	450 (383)	1681 (975)

Note: The above estimates were derived from several different sources; therefore, comparisons among estimates should be made with caution. In addition, it should be noted that when the standar deviations are applied to the respective means, the result in many cases is a negative number Since this is not a meaningful result, it is assumed that the distribution surrounding the mean is skewed to the right.

[1/] Expenditures refer to actual "out-of-pocket" costs paid by the student.

[2/] Total expenditures are independently derived estimates and may not equal the sum of Columns 1-5.

[3/] Estimate is the median expenditure for transportation to and from school.

TABLE 3 - NOTES AND DOCUMENTATION

A more detailed characterization of each estimate can be found in Appendix A to this report. Due to the use of numerous data sources to construct the tables, extreme caution should be exercised in using these estimates for decision-making or analysis purposes.

Column 1:	National Longitudinal Study (7). Base year 1972-73 academic year. Estimates were inflated using the housing component of the CPI.
Column 2:	National Longitudinal Study (7). Base year 1972-73 academic year. Estimates were inflated using the food component of the CPI.
Column 3:	Bureau of the Census (4). Base year 1973-74 fiscal year. Estimates were inflated using the transportation component of the CPI.
Column 4:	Horch and Haven (3). Base year 1969-70 academic year. Estimates were inflated using the medical component of the CPI.
Column 5:	National Longitudinal Study (7). Base year 1972-73 academic year. Estimates were inflated using the overall CPI.
Column 6:	National Longitudinal Study (7). See documentation for Column 5, above.

TABLE 4.* MEAN ESTIMATED EXPENDITURES[1] OF SINGLE, INDEPENDENT STUDENTS NOT LIVING AT HOME BY EXPENSE CATEGORY AND PARENTAL INCOME, ACADEMIC YEAR 1974-75.

Parental Income	Mean Expenditures (Standard Deviation)					(6) Total[2]
	(1) Housing or Room	(2) Food or Board	(3) Transportation (Commuting Costs)	(4) Medical or Dental	(5) Miscellaneous	
I. Upper Quartile ($20,448+)	$469 (305)	$411 (267)	$143[3] (92)	$80 (157)	$399 (415)	$1431 (916)
II. Upper Middle Quartile ($14,636-$20,447)	452 (344)	395 (300)	131[3] (84)	74 (145)	350 (273)	1313 (840)
III. Lower Middle Quartile ($10,714-$14,635)	326 (359)	286 (315)	97[3] (62)	54 (107)	269 (234)	967 (812)
IV. Lower Quartile ($0-$10,713)	397 (333)	347 (291)	115[3] (74)	64 (125)	318 (204)	1149 (758)

Note: The above estimates were derived from several different sources; therefore, comparisons among e mates should be made with caution. In addition, it should be noted that when the standard devi tions are applied to the respective means, the result in many cases is a negative number. This is not a meaningful result because the distribution surrounding the mean is skewed to the right

[1] Expenditures refer to actual "out-of-pocket" costs paid by the student.

[2] Total expenditures are independently derived estimates and may not equal the sum of Columns 1-5.

[3] Estimate is the median expenditure for transportation to and from school.

* The estimates for independent students as calculated in the NLS data are considerably less then thos obtained in the Horch study, as shown in Table 1. In fact, the NLS estimates are approximately 50% of the Horch estimates. Thus, a doubling of the above estimates would likely be more accurate. A more detailed comparison of these studies can be found in Section III.4.4.

TABLE 4 - NOTES AND DOCUMENTATION

A more detailed characterization of each estimate can be found in Appendix A to this report. Due to the use of numerous data sources to construct the tables, extreme caution should be exercised in using these estimates for decision-making or analysis purposes.

Column 1: National Longitudinal Study (7). Base year 1972-73 academic year. Estimates were inflated using the housing component of the CPI.

Column 2: National Longitudinal Study (7). Base year 1972-73 academic year. Estimates were inflated using the food component of the CPI.

Column 3: Bureau of the Census (4). Base year 1973-74 fiscal year. Estimates were inflated using the transportation component of the CPI.

Column 4: Horch (2). Base year 1968-69 fiscal year. Estimates were inflated using the medical care component of the CPI.

Column 5: National Longitudinal Study (7). Base year 1972-73 academic year. Estimates were inflated using the overall CPI.

Column 6: National Longitudinal Study (7). See documentation for Column 5, above.

TABLE 5: MEAN ESTIMATED EXPENDITURES[1] OF SINGLE STUDENTS FOR MISCELLANEOUS ITEMS BY EXPENSE CATEGORY AND FINANCIAL DEPENDENCE, ACADEMIC YEAR 1974-75.

Type of Student	Mean Expenditures (Standard Deviation)				(5) Total[2] Misc.
	(1) Books and Supplies	(2) Clothing, Laundry, & Drycleaning	(3) Debt Repayment	(4) Miscellaneous, not elsewhere classified	
I. Dependent, living at home	$129 (94)	$142 (368)	$62 (257)	$ 87 (164)	$215 (209)
II. Dependent, not living at home	174 (146)	233 (291)	62 (257)	239 (249)	410 (320)
III. Independent, not living at home	149 (110)	233 (291)	191 (605)	203 (548)	627 (865)

Note: The above estimates were derived from several different sources; therefore, comparisons among estimates should be made with caution. In addition, it should be noted that when the standard deviations are applied to the respective means, the result in many cases is a negative number. This is not a meaningful result because the distribution surrounding the mean is skewed to the right.

[1] Expenditures refer to actual "out-of-pocket" costs paid by the student.

[2] Total miscellaneous expenditures are independently derived estimates and may not equal the sum of Columns 1-5.

TABLE 5 - NOTES AND DOCUMENTATION

A more detailed characterization of each estimate can be found in Appendix A to this report. Due to the use of numerous data sources to construct the tables, extreme caution should be exercised in using these estimates for decision-making or analysis purposes.

Cell Documentation

I-1: National Longitudinal Study (7). Base year 1972-73 academic year. Estimate was inflated using the overall Consumer Price Index.

I-2: Horch and Haven (3). Base year 1969-70 academic year. Estimate was inflated using the overall CPI.

I-3: Horch and Haven (3). See documentation for I-2, above.

I-4: National Longitudinal Study (7). See documentation for I-1, above. Estimate includes all other school expenditures, and was inflated using the overall CPI.

I-5: National Longitudinal Study (7). Base year 1976-73 academic year. Estimate includes books and supplies and other expenditures, and was inflated using the overall CPI.

II-1: National Longitudinal Study (7). See documentation for I-1, above.

II-2: Horch (2). Base year 1968-69 fiscal year. Estimate was apportioned to transpose the fiscal year estimate to an academic year (assuming an even distribution throughout the year), and was inflated using the overall CPI.

II-3: Horch and Haven (3). See documentation for I-3, above.

II-4: National Longitudinal Study (7). See documentation for I-4, above.

II-5: National Longitudinal Study (7). See documentation for I-5, above.

III-1: National Longitudinal Study (7). See documentation for I-1, above.

III-2: Horch (2). See documentation for II-2, above.

III-3: Horch (2). See documentation for II-2, above.

III-4: Horch (2). See documentation for II-2, above.

III-5: Horch (2). See documentation for II-2, above.

III.3: Analysis of Data Results

Tables 1 through 5 contain mean student expenditures for several expense categories by type of student and parental income. In this section, all five of the tables are analyzed in terms of what information each conveys about student expenditures and its accuracy. The expenditure information contained in these tables refers solely to the "out-of-pocket" expenditures made by students. No information was found which enabled computation of actual resource usage costs, which means, of course, that expenses incurred on behalf of the student by parents (such as room and board) are not reported.

III.3.1: Analysis of Table 1

Table 1 provides estimates of mean student expenditures by five expense categories for three types of students. The three off-campus student types are: (1) Dependent students living at home, (2) Dependent students not living at home, and (3) Independent students not living at home. The five expense categories included are (1) Housing, (2) Food, (3) Transportation (to and from school), (4) Medical and Dental, and (5) Miscellaneous.

An examination of the estimates shown in Table 1 suggests that total student expenditures do vary substantially according to the students' financial dependency and residency status. Dependent students living at home spend the least of all the student types. In fact, dependent students living at home spent only about one-third that spent by dependent students not living at home. Total expenditures for independent students, on the other hand, exceeded those of either type of dependent student. This pattern was consistent within the individual categories of expenditures with the exception of transporation and medical expenditures.

In interpreting the mean expenditures shown in Table 1 (as well as in the other tables), one must remember that what is being measured is actual out-of-pocket expenditures on the part of the student. Therefore, the fact that the total expenditures of dependent students living at home are considerably less than the other two student types is a function of the fact that these students contribute less towards their actual total living costs than the other student types. Because no resource usage information was found, it was not possible to calculate the costs to the parents of providing room and board for their son or daughter who was attending school. Of course, room and board expenditures explain the bulk of the difference in total expenditures between dependent students living at home and the other two student types.

At first, one may not feel that there is any a priori reason why there would be any difference in the total expenditures of a dependent student not living at home versus an independent student. The only difference between the student types is that dependent students, by definition, rely more heavily on their parents for financial support than independent students. Both types of students, however, should face similar housing markets, etc., which should determine what each must spend. In order to explain the different budget levels for the two types of non-resident students, again, one must look at the "in kind" support from the parents to the dependent student. For example, (1) a dependent student may bring old furniture from home, enabling him to look for an unfurnished apartment or (2) medical or dental treatments may be postponed until visits home, etc.

There are several reasons why use of any specific estimates from this table should be done with extreme caution. First, the relative standard deviation for many of the mean expenditure items is extremely high, so that little confidence can be placed in the fact that any students will be at the mean. Second, for two of the expenditure categories (transportation and medical) information was not available for all student types, necessitating the use of estimates based on assumptions about which student types are likely to have similar expenditures for these items. Third, different sources had to be used in order to provide the best estimates for all the student types and expenditure categories, which causes problems of comparability. Data derived from heterogeneous sources presents comparability problems because the questions asked of students varied, the survey techniques were different, and the samples used were subject to varying biases.

III.3.2: Analysis of Table 2

Mean expenditures for dependent students living at home by parental income are reported in Table 2. It appears from the data shown that, while student expenditures vary by parental income, correlation between parental income and student expenditures does not follow a consistent pattern. Students in the two lowest parental income quartiles reported less total expenditures than those whose parents were in the highest income quartile, but the very least amount of expenses were by students whose parents were in the upper middle income quartile.

Thus, the students from the highest parental income quartile not only appear to have higher resources due to higher current earnings and/or accumulation of such earnings in the past, but also are required by the parents to compensate them for such items as room and board at a higher rate. Part of the explanation may also be that they have the wherewithal to maintain more expensive acquired tastes. In the case of students from lower income families, one might hypothesize that the greater need for the children to contribute towards the family's expenditures is the reason that their expenditures exceed those of dependent students from upper middle income families.

However, the evidence presented in Table 2 is certainly not sufficient to prove conclusively either of these hypotheses. The standard deviations of the total expenditure estimates (presented in the cell documentation) are high enough to more than explain the difference in expenditures observed by income quartile. In fact, the high standard deviation and relatively small difference by parental income quartile may suggest that parental income is not a meaningful variable for student expenditures, but, given the large standard deviations, the confirmation of this hypothesis is weak. Furthermore, Table 2 shows a different relationship between parental income and student expenditures when one examines the individual categories. Students whose parents' income fell in the lowest quartile actually spent more on Transportation and Miscellaneous items than did students from the highest income quartile families. In sum, more accurate information about the expenditures of dependent students living at home is necessary before any hypothesis relating to expenditures by this group and their parental incomes can be confirmed.

III.3.3: Analysis of Table 3

Table 3 provides estimates of mean expenditures for dependent students not living at home by parental income quartile. Dependent students not living at home whose parents' income fell in the lowest quartile spent more than students whose parental income was in the other three quartiles. The least amount of total expenditures was reported for dependent students living at home whose parental income was in the upper middle quartile. Dependent students living at home with family incomes in either the upper quartile or the lower middle quartile spent about the same amount overall.

Thus, both Tables 2 and 3 demonstrated that the expenditures of dependent students show some slight variation according to the income quartile of the students' parents. Both tables, however, also indicated that no consistent relationship exists between parental income and total student expenditures. Interestingly, both tables showed that dependent students with upper middle income parents have the lowest "out-of-pocket" expenses, but the two tables differed drastically as to the students spending the most: dependent students spending the most in Table 2 (living at home) were associated with the highest parental income, while dependent students spending the most in Table 3 (not living at home) were asosciated with the lowest parental income.

One must be cautious about the significance attached to the statistics reported in this table, or in Table 2. While the relative standard deviations reported in Table 3 are lower than those reported in Table 2, there is still sufficient error surrounding the estimates to explain the differences by parental income quartile noted earlier. Furthermore, the absolute difference between the highest and lowest total expenditures by quartile is only $153, or 10 percent. While these estimates suggest that parental income is not a significant determinant of student expenditures, the failure to consider direct parental support, in addition to out-of-pocket expenses by the student, indicates that care should be exercised with regard to this suggestion. Table 3 has an additional problem in that "Transportation" as reported in the National Longitudinal Study could not be used. Transportation in the National Longitudinal Study included trips home as well as transportation to and from class. Therefore, it was necessary to use estimates derived from a Census Bureau publication that provided median student expenditures for transportation to and from school. This cost item was assumed to remain a constant proportion of total expenditures and was thus apportioned by quartile.

III.3.4: Analysis of Table 4

Mean expenditures for independent students not living at home by parental income quartile are presented in Table 4. Independent students whose parental incomes fell in the upper quartile spent more than independent students whose parents' income fell in the other three quartiles. The lowest level of total expenditures was reported by independent students whose parental income fell into the lower middle quartile. Total expenditures by independent students from the lowest parental income quartile exceeded that of students from the lower middle quartile, but were less than those of students from the upper middle quartile.

The variance in the total expenditures of these students among parental income quartiles is greater in Table 4 than in Tables 2 and 3. Because the independent students not living at home are financially independent of their parents, as opposed to the dependent students in Tables 2 and 3, one might have hypothesized that parental income would be a less significant variable in explaining the expenditure patterns of this group. The relationship actually observed, however, could be a reflection of an increased probability of obtaining a high-paying job and a tendency toward more expensive acquired tastes as the parental income increases.

Before drawing any conclusions based on the data in Table 4, several problems regarding the source of these estimates should be noted. The National Longitudinal Study was the basis for all estimates of expenditures by independent students by parental income reported in Table 4, with the exception of the Miscellaneous and Transportation costs. In the National Longitudinal Study, former high school students were asked, one year after graduation, what expenditures they incurred in their first year at college. Students responding in the National Longitudinal Study were identified as financially independent if they relied on their parents for less than 50 percent of their support. The Office of Education's definition of financially independent students, on the other hand, is an extension of the Internal Revenue Service's definition and is much more restrictive than that used in the Longitudinal Study. Therefore, very few, if any, of the first-year students captured in the National Longitudinal Study are probably truly independent students.

The inability of the National Longitudinal Study to portray the expenditures of independent students is exemplified by the discrepancy in the estimates reported in Table 4 versus those shown in Table 1 for independent students. The estimates of expenditures on the part of independent students in Table 1 are derived from the Horch (2) study and are approximately twice as large as those in Table 4. In the Horch (2) study (which was not restricted to first-year students), the definition of independent students used closely reflects that of the Office of Education. Furthermore, the Horch(2) study estimates were drawn from a sample of independent students roughly 10 times as large as that in the National Longitudinal Study. Thus, the estimates obtained from the Horch (2) study are considered more reliable and more representative of the expenditures of truly independent students. In fact, the estimates in Table 4 should be inflated by the ratio of the Horch (2) estimates to the National Longitudinal Study estimates if one is interested in the absolute magnitude of expenditures for independent students as opposed to the distribution among parental income quartiles.

III.3.5: Analysis of Table 5

Table 5 contains a disaggregation of miscellaneous expenditures into four categories for each of the three student types. The total miscellaneous estimates are identical to those provided in Table 1 and show that dependent students living at home spend the least on miscellaenous items, while independent students not living at home spend the most. The total miscellaneous expenditures reported in column 5 of Table 5 indicate that the level of expenditures for dependent students not living at home is about midway between that of the other two student types. However, if one examines the means for the four individual miscellaneous expenditure items, one would note that the spending pattern of the dependent student not living at home reflects much more closely that of the independent student not living at home than the dependent student living at home.

The estimates provided in Table 5 were not explicitly required as part of the study, but were obtained as a byproduct of the data collection efforts for thepreceding tables. The large differences between the sums of the four miscellaneous items (columns 1-4) and the totals reported for miscellaneous expenditures (column 5) are due to the fact that the data are reported from several different sources, and because students of ten don't recall all of their expenditures when simply asked to report miscellaenous or other expenses. This illustrates the problem of using surveys based on recall to obtain student expenditure information. A much more accurate and inclusive measure of the miscellaneous category would be possible using the diary approach where outlays would be recorded regularly.

It should also be noted that the relative standard deviation of the estimates reported in Table 5 are among the highest of any reported in the study. In fact, in two instances the variability associated with the mean is more than four times the mean itself. Therefore, the probability is very low that any single student would be at the mean.

In sum, it would appear, based on the data collected on miscellaneous expenditures, that the current information available of miscellaneous student expenditures is of poor quality. Primary data collection efforts seem necessary to determine the types of expenditures and the amounts spent by students on items which fall in the miscellaneous category.

IV. CONCLUSIONS

In the course of filling in the elements of the five tables described above, it became clear that the data were incomplete and/or of questionable validity from a number of points of view. That is, aside from the obvious point that some of the data cells were filled in by construction or aportioning techniques, the data were incomplete in that some expenditure items were never included. This situation occurred mainly in the "miscellaenous" subcategories where numerous expenditure items were not represented individually (e.g., trips to and from home, recreation, telephone).

The data were also incomplete in that only direct out-of-pocket expenditures by the student were reported. This means that data on resource usage, as opposed to solely what the student paid for, were not available. Thus, in the case of room and board expenditures for dependent students living at home in particular, the data acquired represent only that portion of total costs to the parents for which they were reimbursed by the student.

In a similar manner, many of the data items in Tables 1-5 (particularly medical and miscellaneous) do not properly account for transparent transactions between the student and the parent.

For example, the data do not properly account for medical expenses paid by the parent (or insurance) directly, as opposed to providing the funds directly to the student to cover such expenses. Our data would pick up such expenses only in the latter situation, even though in both instances the financial burden is on the parents and not the student. The inconsistent handling of transparent transactions clearly biases the data as presented.

The major factors which account for the incompleteness of the estimates developed in this report are that the data originated from a heterogeneous collection of surveys and reports and, further, that none of the studies used was specifically designed to examine the expenditures and/or types of students sought in this study. This means that the data compilation often dealt with inconsistent expenditure definitions where studies overlapped, as well as data gaps. For example, in most of the studies examined, transportation expenditures included costs to and from home, vacation trips, etc., in addition to expenditures for commuting to and from classes. Therefore, in order to develop estimates of commuting costs, it was necessary to make certain assumptions about what proportion of the total transportation costs related to commutation costs. Of course, these types of assumptions impact negatively on the accuracy of the final estimates. In addition, since the main purposes of the source studies were other than those of the present study, the samples were almost always nonrandom once the desired student group of interest had been isolated. This, of course, accounts for the extremely large standard deviations associated with the means of the above tables.

Adding to the causal factors behind the large standard deviations, however, is the technique for data collection universally employed by the source studies: survey instruments that rely on recall over an extended period of time. Thus, to adequately measure many of the expenditure items requires the reollection of numerous small outlays over the course of the academic year. Such a recall system has been shown to be unreliable in many different data collection systems. Try, for example, to recall your own food or transportation expenditures over the past nine months.

One comparison of the expenditure data obtained in this study that can be made is with food expenditure information provided by the USDA. As was discussed in Section III.1.2, the USDA computes the cost of food plans based on the nutritional needs of various age-sex groups for four different consumption priority levels. Exhibit 6 provides the USDA food plans estimated for several age-sex groups for the 1975-76 academic year. There are, however, several problems that arise when one attempts to compare the estimates in Exhibit 6 with the food expenditures reported in Table 1. First, the USDA food plans are not estimated specifically for students, much less for different types of students. Second, the estimates in Table 1 measure out-of-pocket expenditures while the USDA food plans measure total resource usage devoted to food. This difference is evidenced by the fact that food expenditures reported in Table 1 for dependent students living at home are substantially lower than any of the estimates shown in Exhibit 6. Third, the USDA food plans are priced based on the assumption that all meals are prepared at home, which is unlikely to be the case for students (even dependent students living at home probably purchase some meals on campus or outside of home). And lastly, the age breaks provided in the food plan estimates do not match precisly the student ages desired. However, if one did want to make a comparison between the USDA food plan estimates and those in Table 1 and minimize the aforementioned problems associated with such a comparison, one might choose to look at the food costs for independent students not living at home and compare them to the food plans for males and females 20-54 years living in a 1-person family. Food expenditures reported in Table 1 for independent students not living at home are $720, which falls between the low-cost and moderate food plans for males and females age 20-54 years living in a 1-person family (taking the midpoint between the male and female food plans).

EXHIBIT 6: USDA ESTIMATED FOOD PLANS AT FOUR COST LEVELS, 1975-76 ACADEMIC YEAR

Sex-Age Groups	Thrifty Plan	Low-Cost Plan	Moderate Plan	Liberal Plan
Individuals in a 4-person family:				
Male:				
12-14 years	$419	$540	$676	$814
15-19 years	461	596	747	902
20-54 years	441	580	733	886
Female:				
12-19 years	373	481	597	714
20-54 years	358	465	581	698
Individuals in a 1-person family:				
Male				
12-14 years	503	648	811	977
15-19 years	553	715	896	1082
20-54 years	529	696	880	1063
Female:				
12-19 years	448	577	716	857
20-54 years	430	558	697	838

Another interesting comparison of the results of Task 1 that points out the out-of-pocket nature of these data is with the College Scholarship Service (CSS) estimates provided in Exhibit 7. The CSS estimates pertain to "costs" of the various expenditure items, while the data presented in Tables 1-5 relate to actual out-of-pocket expenditures made by the student. Therefore, it is not surprising that one of the greatest percentage differences seen between the two data sets occurs in the estimation of room and board expenditures on the part of dependent students living at home. Table 1 shows $318 as the total room and board expenditures for dependent students living at home, while the CSS estimates show $819 as the mean expenditure on room and board for this same group. Naturally, the "real" cost to the parent of providing food and housing for their dependents is not likely to be reflected in a measure of reimbursement to the parent by the student as is the case in Table 1.

EXHIBIT 7: MEAN ESTIMATED EXPENDITURES OF SINGLE STUDENTS BY EXPENSE CATEGORY AND FINANCIAL DEPENDENCE, AS REQUESTED BY THE COLLEGE SCHOLARSHIP SERVICE FOR 1976-77

Type of Student	Room & Board	Transportation	Personal	Books & Supplies
I. Dependent, living at home	$ 819	$367	$455	$194
I. Dependent, not living at home	$1,444	$279	$464	$194
II. Independent, not living at home	$2,160	$437	$677	$194

In general, the pattern of estimates presented in Exhibit 7 is similar to that of the data in Table 1. Total expenditures for dependent students living at home are the lowest among the three student types, while total expenditures for independent students are the highest. However, the total dollar expenditures shown in Exhibit 7 for each student type greatly exceeds (from about 35 to 200 percent) those in Table 1 (even after the estimates in Exhibit 7 are deflated to 1974-75). Further, differences in the CSS estimates and those in Table 1 can be seen when the individual expenditure categories are examined. For example, Table 1 shows that dependent students spent the most on transportation while Exhibit 7 indicates that independent students spent the most. Furthermore, the dollar, estimates of transportation expenditures from the CSS data are from 2 to 3½ times as large as those in Table 1. For example, Table 1 showed transportation expenses to be $118 for independent students compared to $437 for the same group from the CSS estimates.

This difference is largely attributable to the fact that the CSS definition of transportation includes trips to and from home while the tranportation estimates in Table 1 measure only commuting costs to and from school. Unfortunately, it is impossible, based on published information from the CSS to separate commuting costs from the total tranportation figures. Comparable estimates for all the categories shown in Table 1 are not provided in the CSS data and for those few items which are (room and board and total expenditures) there are wide variations in the dollar amounts shown for each student type (with the single exception of room and board for dependent students not living at home).

In conclusion, few of the estimates presented in this report can be viewed as providing an accurate representation of non-residential postsecondary student expenditures. The definitional problems encountered, the variations in data collection methodologies, the lact of data on resource usage costs, as well as the occurrence of missing values all greatly limit the reliability of the estimates obtained in Task 1. The data of sufficient quality to formulate policy regarding the expenditures of non-residential student does not currently exist.

APPENDIX A

CELL DOCUMENTATION FOR NON-RESIDENTIAL POSTSECONDARY STUDENT EXPENDITURES

TABLES 1-5

This appendix contains documentation for all the data items presented in Tables 1-5 earlier in this report. This documentation is designed to serve many purposes. First, it provides the reader with sufficient information such that they can identify the specific source of the item. Second, any manipulation of the original estimate is explained so that the reader may convert the estimate to its original form should he so choose. Third, standard deviations are given for each estimate so that the reader can better interpret the significance of the mean estimate reported. And lastly, the reason for selecting each element from among all the estimates found for that particular cell is also given. In sum, this documentation not only allows the reader to assess the reliability and quality of the estimates, but also to retrace the steps taken to obtain or construct each estimate shown in Tables 1-5.

In order to convey this information to the reader in a concise fashion, the following set of elements are provided for each estimate:

- Cell Number - this number provides the reader with a quick reference to the location of the estimate in the appropriate table. The Roman numeral refers to the row, the Arabic number refers to the column. For example, in the documentation for Table 1, cell number I-2 refers to the mean expenditures for food by dependent students living at home. Similarly, cell number III-4 refers to medical or dental expenditures by independent students living off-campus.

- Source - these numbers refer to the data sources from which student expenditures estimates were obtained. The eight data sources used are listed below. Those sources from which the final estimates were chosen are marked with an asterisk "*".

(1) Wagner, Alan, "Cutting the Coat to Fit the Cloth: Student Expense Budgets." Mimeographed paper prepared for the College Scholarship Service. College Entrance Examination Board. Washington D.C. 1976.

*(2) Horch, Dwight H., "Expense Budgets of Self-Supporting Students, 1967-68 and 1968-69." College Scholarship Service. March 1971.

*(3) Haven, Elizabeth W. and Dwight H. Horch, "How College Students Finance Their Education: A National Survey of the Educational Interests, Aspirations, and Finances of College Sophomores in 1969-70." College Scholarship Service. January 1973.

*(4) U.S. Bureau of the Census, "Income and Expenses of Students Enrolled in Postsecondary Schools: October 1973." Current Population Reports. Series P-20, No. 281. June 1975.

(5) Suchar, Elizabeth W., Stephen H. Ivens and Edmund C. Jacobsen, "Student Expenses at Postsecondary Institutions, 1976-77." College Scholarship Service. 1976.

(6) Van Dusen, William D., E. Jacobsen and A. Wagner, "Analysis of Student Costs of Attendance." Prepared for the Office of Planning, Budgeting and Evaluation, Office of Education, Department of Health, Education and Welfare. December 1974.

*(7) Applied Management Sciences, unpublished tabulations from the National Longitudinal Study of 1972.

(8) Suchar, Elizabeth W., et. al., "Student Expenses at Postsecondary Institutions, 1974-75. College Scholarship Service. 1974.

- Base Year of Element - the year reported here is the year in which the data was originally reported, including whether this was an academic year, a fiscal year, or a calendar year.

- Collection Method - this category contains a brief description of the method that was used in collecting the data, such as mail survey, application forms, etc., and describes the sample size and the universe from which the sample was selected.

- Statistical Measure - the measure which was reported in the data source; in all cases either a mean or median. The number which follows is the estimate after inflationary and other adjustments.

- Measure of Dispersion - this category provides the relative standard deviation and the standard deviation of the estimate.

- Reason for Selection - describes the process by which the estimate was selected, and includes the comparison of the estimate with estimates from other data sources which were not chosen.

CELL DOCUMENTATION-TABLE 1

CELL DOCUMENTATION

Cell Number

I-1 (Housing - dependent students at home)

Source

Horch and Haven (3)

Base Year of Element

1969-70 Academic Year

Collection Method

Questionnaire administered to a sample of 3,363 students who were part of a sample of college sophomores who had been selected during high school and traced through college.

Statistical Measure

Weighted mean = $146

Measure of Dispersion

Relative Standard Deviation = 1.49
Standard Deviation = $218

Reason for Selection

The sample of students was selected randomly from the universe of all high school students in 1967-68, and is therefore nationally representative. Only one figure was reported for both room and board, and thus had to be apportioned by using proportions reported in the Consumer Expenditure Survey's middle income budget for a family of four (47.7% for housing and 52.3% for food). In addition, the estimate presented above was inflated from 1969-70 to 1974-75 using the housing component of the Consumer Price Index.

Four other estimates of housing expenditures by dependent students living at home were reported. Wagner (1) estimated such expenditures to be $213; however, this estimate was based on only a 20% sample of the NLS data, which Applied Management Sciences calculated on a 100% basis. Van Dusen (6) reported housing expenditures of $289, but this estimate is not nationally representative (since it is based on only 4 states). The College Scholarship Service (8) reported expenditures of $366, but this estimate was based only on estimates of college financial aid officers, not on actual data.

Reason for Selection

I-1 (Continued)

The fourth estimate of housing expenditures by students living at home was that provided by the NLS (7) data computed by Applied Management Sciences. These calculations showed an estimate of $96 for housing, as compared with $146 for the Horch and Haven (3) estimate. Both the Horch and Haven and the NLS data are nationally representative; and both have similar sample size (approximately 800), and yet the estimates are substantially different. Further analyses revealed that the NLS estimate exhibited an extremely high relative standard deviation (3.2, more than double that of the Horch and Haven study), and therefore, the decision was made to use the Horch and Haven estimate.

CELL DOCUMENTATION

Cell Number

I-2 (Food - dependent students at home)

Source

Horch and Haven (3)

Base Year of Element

1969-70 Academic Year

Collection Method

Questionnaire administered to a sample of 3,363 students who were part of a sample of college sophomores who had been selected during high school and traced through college.

Statistical Measure

Weighted Mean = $171

Measure of Dispersion

Relative Standard Deviation = 1.47
Standard Deviation = $251

Reason for Selection

The sample of students was selected randomly from the universe of all high school students in 1967-68, and is therefore nationally representative. Only one figure was reported for both room and board, and thus had to be apportioned by using proportions reported in the Consumer Expenditure Survey's middle income budget for a family of four (47.4% for housing and 52.3% for food). In addition, the estimate presented above was inflated from 1969-70 to 1974-75 using the food component of the Consumer Price Index.

Four other estimates of food expenditures by dependent students living at home were reported. Wagner (1) estimated such expenditures to be $249; however, this estimate was based on only a 20% sample of the NLS data, which Applied Management Sciences calculated on a 100% basis. Van Dusen (6) reported food expenditures of $316, but this estimate is not nationally representative (since it is based on only 4 states). The College Scholarship Service (8) reported expenditures of $402, but this estimate was based only on estimates of college financial aid officers, not on actual data.

Reason for Selection

I-2 (Continued)

The fourth estimate of food expenditures by students living at home was that provided by the NLS (7) data computed by Applied Management Sciences. These calculations showed an estimate of $108 for food, as compared with $171 for the Horch and Haven (3) estimate. Both the Horch and Haven and the NLS data are nationally representative; and both have similar sample sizes (approximatly 800), and yet the estimates are substantially different. Further analyses revealed that the NLS estimate exhibited an extremely high relative standard deviation (3.2, more than double that of the Horch and Haven study), and therefore, the decision was made to use the Horch and Haven estimate.

CELL DOCUMENTATION

Cell Number

I-3 (Transportation to and from school - dependent students at home)

Source

National Longitudinal Study

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $128

Measure of Dispersion

Relative Standard Deviation = 1.49
Standard Deviation = $191

Reason for Selection

The sample design was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units, and is therefore nationally representative. The estimate was inflated from 1972-73 to 1974-75 using the transportation element of the Consumer Price Index.

Four other estimates of transportation expenditures by students living at home were identified. Wagner (1) estimated such expenditures to be $205; however, this estimate was based on only a 20% sample of NLS data, whereas Applied Management Sciences calculated NLS data on a 100% basis. Suchar (5) reported an estimate of $367 for transportation expenditures, but this figure was simply based on estimates by college financial aid officers, not on actual data. Suchar (8) estimated expenditures of $248, but this figure also was not based on actual data.

Reason for Selection

I-3 (Continued)

The fourth estimate of transportation expenditures by students living at home was provided by Horch and Haven (3). This study was very similar in scope to the NLS data. Both studies had a similar sample size (approximately 800) and were nationally representative. In addition, the relative standard deviation of the estimates were very close (.973 for Horch and Haven and .99 for NLS). The decision to select the NLS estimate was based on analysis of the survey instrument used in each study. The Horch and Haven question on transportation expenditures was more encompassing than the NLS question, and students were very likely to report items such as vacation expenses, trips to foreign countries, etc. The NLS question however was worded in a fashion in which students were more likely to report only transportation expenses to and from school. Since this definition was more in line with the scope of the present study, the NLS estimate was chosen.

CELL DOCUMENTATION

Cell Number

I-4 (Medical or Dental - dependent at home)

Source

Horch and Haven (3)

Base Year of Element

1969-70 Academic Year

Collection Method

Questionnaire administered to a sample of 3,363 students who were part of a sample of college sophomores who had been selected during high school and traced through college.

Statistical Measure

Weighted mean = $66

Measure of Dispersion

Relative Standard Deviation = 1.95
Standard Deviation = $129

Reason for Selection

The sample of students was selected randomly from the universe of high school students in 1967-68, and is therefore nationally representative. The estimate of medical and dental expenditures was inflated from 1969-70 to 1974-75 using the medical care component of the Consumer Price Index. Although the relative standard error is somewhat high, the element reported above was the only estimate identified for medical expenditures by dependent students living at home.

CELL DOCUMENTATION

Cell Number

I-5 (Miscellaneous - dependent students at home)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $215

Measure of Dispersion

Relative Standard Deviation = 0.97
Standard Deviation = $209

Reason for Selection

The sample design was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units, and is therefore nationally representative. The estimate presented above was inflated from 1972-73 to 1973-74 using the overall Consumer Price Index.

Three other estimates of miscellaneous expenditures by students living at home were identified. Wagner (1) estimated such expenditures to be $374; however, this figure was based on only a 20% sample of NLS data, whereas Applied Management Sciences calculated NLS data on a 100% sample. Suchar (5) estimated miscellaneous expenditures by dependent students living at home to be $649. This figure however is for 1976-77, and is based on estimates by college financial aid officers, not on actual data.

The third estimate of dependent students' miscellaneous expenditures was provided by Horch and Haven (3). Their estimate of $449 was, like NLS, based on a nationally representative sample and had a similar sample size (approximately 800). However, the Horch and Haven estimate did not include books and supplies in the miscellaneous category; rather, the estimate of books and supplies was included in the tuition figure, and could not be broken out. For this reason, the decision was made to use the NLS estimate.

CELL DOCUMENTATION

Cell Number

I-6 (Total - dependent students at home)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $536

Measure of Dispersion

Relative Standard Deviation = 1.46
Standard Deviation = $783

Reason for Selection

The sample design was a two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. The element is nationally representative. The total expenditure estimate is the aggregation of the means for room and board, transportation, books and supplies and other expenses. The estimate of total expenditures was inflated from 1972-73 to 1974-75 by using the overall Consumer Price Index.

Four other estimates of total expenditures by students living at home were identified. Wagner (1) estimated total expenditures at $1027; however, this estimate was based on only a 20% sample of NLS data, whereas Applied Management Sciences calculated the NLS on a 100% basis. Suchar (5) provided an estimate of $1835 for total expenditures, but this figure was based on estimates by college financial aid officers, not on actual data. Van Dusen (6) estimated total expenses of $2038, but this estimate is not nationally representative, since it is based only on data from four states. Horch and Haven (3) reported an estimate of $2229, but this figure includes expenditures for tuition and fees, which were lumped with books and supplies, and therefore could not be broken out.

CELL DOCUMENTATION

Cell Number

II-1 (Housing - dependent students off-campus)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $575

Measure of Dispersion

Relative Standard Deviation = 0.53
Standard Deviation = $305

Reason for Selection

The sample design was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. The element is nationally representative. Since room and board were reported as one figure, they were apportioned based on the same weights used for independent students. (55% for housing and 45% for food) It was hypothesized that the dependent student living off-campus and the independent student living off-campus faced similar expenditure situations with respect to housing costs. In addition, the housing estimate was inflated from 1972-73 to 1974-75 using the housing component of the Consumer Price Index. Suchar (5) estimated housing expenses as $794; however, this was simply an estimate of housing expenses for 1976-77 based on a compilation of estimates obtained from financial aid officers throughout the nation and was not based on actual data.

CELL DOCUMENTATION

Cell Number

II-2 (Food - dependent students off-campus)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $502

Measure of Dispersion

Relative Standard Deviation = 0.61
Standard Deviation = $306

Reason for Selection

The sample design was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. The element is nationally representative. Since room and board were reported as one figure, they were apportioned based on the same weights used for independent students, (55% for housing, 45% for food). It was hypothesized that the dependent student living off-campus and the independent student living off-campus faced similar expenditure situations with respect to food costs. In addition, the food estimate was inflated from 1972-73 to 1974-75 using the food component of the Consumer Price Index. Only one other estimate was obtained for this category; Suchar (5) reported food expenses of $658, but this was simply an estimate of food expenses for 1976-77 based on a compilation of estimates obtained from financial aid officers throughout the nation, which was not based on actual data.

CELL DOCUMENTATION

Cell Number

II-3 (Transportation to and from school - dependent students off-campus)

Source

Bureau of the Census (4)

Base Year of Element

1973-74 Fiscal Year (July through June)

Collection Method

Drop-off questionnaires given to households which had indicated on a supplement to the October 1973 Current Population Survey the presence of postsecondary schooling of at least one member of the family.

Statistical Measure

Median = $118

Measure of Dispersion

Relative Standard Deviation = .65
Standard Deviation = $77

Reason for Selection

This was the only source of data obtained that delineated expenditures for transportation to and from school. Other figures only identified total transportation expenses, including trips to and from home. The sample was weighted by the Census Bureau fo be nationally representative. In addition, the estimate was inflated from 1973-74 to 1974-75 using the transportation component of the Consumer Price Index.

The estimate provided above is the same as that for independent students. It was hypothesized that dependent students living off-campus and independent students living off-campus faced similar expenditure situations with respect to commuting costs. Therefore, the same transportation estimate was used for both independent students and dependent students living off-campus.

CELL DOCUMENTATION

Cell Number

II-4 (Medical or Dental - dependent students off-campus)

Source

Horch and Haven (3)

Base Year of Element

1969-70 Academic Year

Collection Method

Questionnaire administered to a sample of 3,363 students who were part of a sample of college sophomores who had been selected during high school and traced through college.

Statistical Measure

Weighted mean = $66

Measure of Dispersion

Realitive Standard Deviation = 1.95
Standard Deviation = $129

Reason for Selection

Due to the unavailability of any estimate for medical expenses by this category of students, the above figure is the same as that used for dependent students living at home. It was believed that the approach was reasonable, since in many cases dependent students living off-campus will return home to receive routine medical care, and since the parents will most likely pay for this care.

The sample of students was selected randomly from the universe of high school students in 1967-68, and is therefore nationally representative. The estimate was inflated from 1972-73 to 1974-75 using the medical care component of the Consumer Price Index. Althought the relative standard error is rather high, this estimate was the only one identified for the expenditure category.

CELL DOCUMENTATION

Cell Number

II-5 (Miscellaneous - dependent students off-campus)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $410

Measure of Dispersion

Relative Standard Deviation = 0.78
Standard Deviation = $320

Reason for Selection

The sample design was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. The element is nationally representative. The miscellaneous figure was obtained by aggregating the mean expenditures for books, supplies, and other expenses. The estimate was inflated from 1972-63 to 1974-75 by using the overall Consumer Price Index. Only one other estimate (5) of miscellaneous expenditures for dependent students living off-campus was obtained; this was simple a compilation of estimates made by financial aid officers throughout the nation. This estimate is for 1976-77, and is not based on actual data.

CELL DOCUMENTATION

Cell Number

II-6 (Total - dependent students off-campus)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $1,603

Measure of Dispersion

Relative Standard Deviation = 0.56
Standard Deviation = $898

Reason for Selection

The sample design was a two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. The estimate is the aggregation of the means for room and board, transportation, books and supplies and other expenses. The estimate of total expenditures was inflated from 1972-73 to 1974-75 by using the overall Consumer Price Index. Suchar (5) estimated total expenses of $2,381, but this was simply a compilation of estimates made by financial aid officers throughout the nation. These estimates are for 1976-77, and are not based on actual data.

CELL DOCUMENTATION

Cell Number

III-1 (Housing-Independent students)

Source

Horch (2)

Base Year of Element

1968-69 Fiscal year (July through June)

Collection Method

Element is based on a random sample of 10,000 Students Confidential Statements out of 30,000 submitted to the College Scholarship Service in 1968.

Statistical Measure

Weighted mean = $819

Measure of Dispersion

Relative standard deviation = .79
Standard deviation = $647

Reason for Selection

Several important factors entered into the selection of this element of expenditures for housing by independent students. First, the element is nationally representative. Although the sample only included students who submitted confidential statements to the CSS, the mean maintenance expenses for SCS filers is $2,265, and the mean maintenance expenses for persons aged 20-35 as calculated in the USDA moderate level budget is $2,395. The high degree of similarity between these two groups indicates that the estimates are quite reasonable.

In addition to the national representiveness of the sample, this is the only source identified that reports separate expenditures for food and housing. All other estimates report experiences for both room and board, which were subsequently apportioned based on the proportion of food and housing in Horch (55% for housing, 45% for food).

Wagner (1) estimated expenditures for housing to be $465, however, the source of this estimate was a 20% sample of the NLS data, which Applied Management Sciences calculated on a 100% basis. Suchar's (5) estimate was $1188 for housing; this estimate was not however based on actual data. Van Dusen (6) provided an estimate of $552 for housing, but this estimate is not nationally representative.

Reason for Selection

III-1 (continued)

The NLS (7) estimate was not selected for several reasons. Specifically, the NLS sample exhibit a great weakness in terms of estimating expenditures for independent students. Since the sample was selected from the high school class of 1972 who were followed up in the first year after graduation, it is safe to speculate that not many of the graduates who attend college are independent of their parents. This speculation is borne out by the fact that only 300 independent students are contained in the sample. The Horch study, on the other hand, was specifically designed to estimate expenditures of self-supporting students, and comprises a sample of over 4,000 such students. Due to the above considerations, the Horch (2) estimate was considered to be the most accurate. This estimate was inflated from 1968-69 using the food component of the Consumer Price Index.

CELL DOCUMENTATION

Cell Number

III-2 (Food - Independent Students)

Source

Horch (2)

Base Year of Element

1968-69 Fiscal year (July through June)

Collection Method

Element is based on a random sample of 10,000 Student's Confidential Statements out of 30,000 submitted to the College Scholarship Service in 1968.

Statistical Measure

Weighted mean = $720

Measure of Dispersion

Relative Standard Deviation = 1.16
Standard Deviation = $835

Reason for Selection

Several factors entered into the selection of this estimate of expenditures for food by independent statements. First, the element is nationally representative. Although the sample only included students who submitted confidential statements to the CSS, the mean maintenance expenses for SCS filers is $2,265, and the mean maintenance expenses for persons aged 20-35 as reported in the USDA moderate level budget in $2,395. The high degree of similarity between these two groups indicate that the above estimate is quite reasonable.

In addition to the national representativeness of the sample, this is the only source identified that reports separate expenditures for food and housing. All other estimates report expenditures for both room ***and*** *board, which were subsequently apportioned based on the proportion of food and housing from Horch (55% for housing, 45% for food).*

Wagner (1) estimated expenditures for food to be $404; however, the source of the estimate was a 20% sample of the NLS data from which Applied Management Sciences calculated estimates on a 100% basis. Suchar (5)

Reason for Selection

III-2 (Continued)

estimated food expenditures of $972; this estimate however is for 1976-77 and is not based on actual data. Van Dusen estimated food expenses of $451, but this estimate is not nationally representative.

The NLS (7) estimate computed by Applied Management Sciences was not selected for several reasons. Primarily, the NLS sample exhibits a great weakness in terms of estimating expenditures for independent students. Since the sample was selected for the high school class of 1972 who were followed up in the first year after graduation, it is safe to speculate that not many of these graduates who attend college are fully independent of their parents. This speculation is borne out by the fact that only 300 independent students are contained in the NLS sample. The Horch study, on the other hand, was specifically designed to estimate expenditures of self-supporting students, and comprises a sample of over 4,000 such students. Due to the above considerations, the Horch (2) estimate was considered to be the most accurate. This estimate was inflated from 1968-69 to 1974-75 using the food component of the Consumer Price Index.

CELL DOCUMENTATION

Cell Number

III-3 (Transportation to and from school - Independent Students)

Source

Bureau of the Census (4)

Base Year of Element

1973-74 Fiscal Year (July through June)

Collection Method

Drop-off questionnaire given to households which had indicated on a supplement to the October 1973 Current Population Survey the presence of postsecondary schooling of at least one member of the family.

Statistical Measure

Median = $118

Measure of Dispersion

Relative Standard Deviation = .65
Standard Deviation = $77

Reason for Selection

This was the only source of data obtained for any of the three student types that delineated expenditures to and from school. All other estimates, including Wagner (1), Horch (2), Suchar (5), and NLS (7) were comprised of both commuting expenses and trips to and from home. The estimate shown above was obtained and weighted by the Census Bureau to be nationally representative. In addition, the estimate was inflated from 1973-74 to 1974-75 by using the transportation component of the Consumer Price Index.

CELL DOCUMENTATION

Cell Number

III-4 (Medical or Dental - Independent Students)

Source

Horch (2)

Base Year of Element

1968-69 Fiscal Year (July though June)

Collection Method

Element is based on a random sample of approximately 10,000 Students' Confidential Statements submitted to the College Scholarship Service.

Statistical Measure

Weighted mean = $124

Measure of Dispersion

Relative Standard Deviation = 1.98
Standard Deviation = $246

Reason for Selection

This was the only source of data identifed which reported medical and dental expenditures for independent students. The estimate is nationally representative. Although the sample only included students who submitted confidential statements to the CSS, the mean maintenance expenses for SCS filers is $2,265, and the mean maintenance expenses for persons aged 20-35 as reported in the USDA moderate level budget is $2,395. The high degree of similarity between these two groups indicates that the above estimate is quite reasonable. The reasonability of this estimate is added to by the magnitude of the sample size (2,229 males and 2,237 females). The estimate was inflated from 1968-69 to 1974-75 by using the medical care component of the Consumer Price Index.

CELL DOCUMENTATION

Cell Number

III-5 (Miscellaneous - Independent Students)

Source

Horch (2)

Base Year of Element

1968-69 Fiscal Year (July through June)

Collection Method

Element is based on a random sample of approximately 10,000 Students' Confidential Statements submitted to the College Scholarship Service.

Statistical Measure

Weighted mean = $627

Measure of Dispersion

Relative Standard Deviation = 1.38
Standard Deviation = $865

Reason for Selection

The selection of this estimate of miscellaneous expenditures by independent students was based on several factors. Primarily, the estimate is nationally representative. Although the sample only included students who submitted confidential statements to the CSS, the mean maintenance expenses for SCS filers is $2,265, and the mean maintenance expenses for persons aged 20-35 as reported in the USDA moderate level budget is $2,395. The high degree of similarity between these two groups indicate that the above estimate is quite reasonable. In addition, the magnitude of the sample size (2,229 males and 2,237 females) adds to the reasonability of the estimate.

Other estimates of miscellaneous expenditures included the following: Wagner (1) estimated the expenses to be$437; however, this estimate was based on only a 20% sample of the NLS data, whereas Applied Management Sciences calculated the estimate based on the universe of NLS data. The Census Bureau's (4) estimate was $99; however, this estimate included expenditures for books only.

III-5 (continued)

The NLS (7) estimate computed by Applied Management Sciences was not selected for several reasons. Primarily, the NLS sample exhibits a great weakness in terms of estimating expenditures for independent students. Since the sample was selected for the high school class of 1972 who were followed up in the first year after graduation, it is safe to speculate that not many of these graduates who attend college are fully independent of their parents. This speculation is borne out by the fact that only 300 independent students are contained in the NLS sample. The Horch study, on the other hand, was specifically designed to estimate expenditures of self-supporting students, and comprises a sample of over 4,000 such students. Due to the above considerations, the Horch (2) estimate was considered to be the most accurate. This estimate was inflated from 1968-79 to 1974-75 using the food component of the Consumer Price Index.

CELL DOCUMENTATION

Cell Number

III-6 (Total - Independent Students)

Source

Horch (2)

Base Year of Element

1968-69 Fiscal Year (July through June)

Collection Method

Element is based on a random sample of approximately 10,000 Students' Confidential Statements submitted to the College Scholarship Service.

Statistical Measure

Weighted mean = $2,476

Measure of Dispersion

Relative Standard Deviation = .98
Standard Deviation = $2,426

Reason for Selection

The total expenditure estimate was obtained by aggregating the mean expenditures for food and board, transportation, medical or dental care, and other miscellaneous items. Several factors entered into the selection of this estimate of expenditures for food by independent students. First, the element is nationally representative. Although the sample only included students who submitted confidential statements to the CSS, the mean maintenance expenses for SCS filers is $2,265, and the mean maintenance expenses for persons aged 20-35 as reported in the USDA moderate level budget is $2,395. The high degree of similarity between these two groups indicates that the above estimate is quite reasonable. In addition, the magnitude (over 4,000) of the sample size adds to its reasonability.

Other estimates of total expenditures by independent students included the following: Wagner (1) estimated total expenditures of independent students as $1464; however, this estimate is based on only a 20% sample of the NLS data, whereas Applied Management Sciences calculated the estimate based on the universe of the NLS sample. Van Dusen (6) estimated total expenses of

III-6 (continued)

$2,543, but this estimate is not nationally representative. Suchar (5) provided an estimate of $3,468, but this figure is for 1976-77 and is not based on actual data, but on estimates by financial aid officers around the nation.

The NLS (7) estimate computed by Applied Management Sciences was not selected for several reasons. Primarily, the NLS sample exhibits a great weakness in terms of estimating expenditures for independent students. Since the sample was selected for the high school class of 1972 who were followed up in the first year after graduation, it is safe to speculate that not many of these graduates who attended college are fully independent of their parents. This speculation is borne out by the fact that only 300 indpendent students are contained in the NLS sample. The Horch study, on the other hand, was specifically designed to estimate expenditures of self-supporting students, and comprises a sample of over 4,000 such students. Due to the above considerations, the Horch (2) estimate was considered to be the most accurate. This estimate was inflated from 1968-69 to 1974-75 using the food component of the Consumer Price Index.

CELL DOCUMENTATION-TABLE 2

CELL DOCUMENTATION

Cell Number

I-1 (Housing - upper quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $134

Measure of Dispersion

Relative Standard Deviation = 2.19
Standard Deviation = $293

Reason for Selection

The sample design was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. Thus, the element is nationally representative. Since room and board were reported as one figure, they were apportioned by using weights (47.7% for housing and 52.3% for food) derived from the Consumer Expenditure Survey's middle income budget for a family of four. In addition, the estimate presented was inflated from 1972-73 to 1974-75 using the housing component of the Consumer Price Index. This was the only estimate available for this cell.

CELL DOCUMENTATION

Cell Number

I-2 (Food - upper quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $158

Measure of Dispersion

Relative Standard Deviation = 2.19
Standard Deviation = $346

Reason for Selection

The sample design was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. Thus, the element is nationally representative. Since room and board were reported as one figure, they were apportioned by using weights (47.7% for housing and 52.3% for food) derived from the Consumer Expenditure Survey's middle income budget for a family of four. In addition, the estimate presented was inflated from 1972-73 to 1974-75 using the food component of the Consumer Price Index. This was the only estimate available for this cell.

CELL DOCUMENTATION

Cell Number

I-3 (Transportation to and from school - upper quartile,

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $133

Measure of Dispersion

Relative Standard Deviation = 1.56
Standard Deviation = $207

Reason for Selection

The sample design was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. Thus, the element is nationally representative. The estimate was inflated from 1972-73 to 1974-75 using the transportation component of the Consumer Price Index. This was the only estimate obtained for this cell.

CELL DOCUMENTATION

Cell Number

I-4 (Medical or Dental - upper quartile)

Source

Horch and Haven (3)

Base Year of Element

1969-70 Academic Year

Collection Method

Questionnaire administered to a sample of 3,363 students who were part of a sample of college sophomores who had been selected during high school and traced through college.

Statistical Measure

Weighted mean = $75

Measure of Dispersion

Relative Standard Deviation = 1.96
Standard Deviation = $147

Reason for Selection

This estimate was derived from the Horch and Haven (3) estimate of medical and dental costs reported in Table 1 for this student type. The sample of students used was selected randomly from the universe of high school students in 1967-68, and is therefore nationally representative. The original estimate was inflated from 1969-70 to 1974-75 using the medical care component of the Consumer Price Index. Because this estimate of medical and dental costs (as well as any other) was not crossclassified by parental income, it was necessary to assume that medical and dental costs remain a constant proportion of total student expenditures. Therefore, it was calculated from Table 1 that 12.3% of total student expenditures went to medical care. By applying this ratio to total expenditures by income quartile, medical and dental expenditures were estimated.

CELL DOCUMENTATION

Cell Number

I-5 (Miscellaneous - upper quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean - $210

Measure of Dispersion

Relative Standard Deviation = 0.95
Standard Deviation = $200

Reason for Selection

The sample design was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. The element is, therefore, nationally representative. The miscellaneous figure was obtained by aggregating the mean expenditures for books, supplies, and other expenses. The estimate was inflated from 1972-73 to 1974-75 by using the overall Consumer Price Index. No other estimate for miscellaneous expenditures by parental income was found.

CELL DOCUMENTATION

Cell Number

I-6 (Total expenditures - upper quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all levels of public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $613

Measure of Dispersion

Relative Standard Deviation = 1.23
Standard Deviation = $754

Reason for Selection

The sample design was a two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. The estimate is, therefore, nationally representative. The components of the estimate are means for room and board, transportation, books and supplies and other expenses. The total was inflated from 1972-73 to 1974-75 by using the overall Consumer Price Index. Aside from the NLS, only the May 1974 Current Population Survey provided estimates of total student expenditures by parental income. However, not all three student types were identifiable, and only median expenditures were reported.

CELL DOCUMENTATION

Cell Number

II-1 (Housing - upper middle quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $68

Measure of Dispersion

Relative Standard Deviation = 2.69
Standard Deviation = $183

Reason for Selection

The sample design was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. Thus, the element is nationally representative. Since room and board were reported as one figure, they were apportioned by using weights (47.7% for housing and 52.3% for food) derived from the Consumer Expenditure Survey's middle income budget for a family of four. In addition, the estimate presented was inflated from 1972-73 to 1974-75 using the housing component of the Consumer Price Index. This was the only estimate available for this cell.

CELL DOCUMENTATION

Cell Number

II-2 (Food - upper middle quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $80

Measure of Dispersion

Relative Standard Deviation = 2.71
Standard Deviation = $217

Reason for Selection

The sample design was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. Thus, the element is nationally representative. Since room and board were reported as one figure, they were apportioned by using weights (47.7% for housing and 52.3% for food) derived from the Consumer Expenditure Survey's middle income budget for a family of four. In addition, the estimate presented was inflated from 1972-73 to 1974-75 using the food component of the Consumer Price Index. This was the only estimate available for this cell.

CELL DOCUMENTATION

Cell Number

II-3 (Transportation to and from school - upper middle quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $117

Measure of Dispersion

Relative Standard Deviation = 1.46
Standard Deviation = $171

Reason for Selection

The sample design was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. Thus, the element is nationally representative. The estimate was inflated from 1972-73 to 1974-75 using the transportation component of the Consumer Price Index. This was the only estimate obtained for this cell.

CELL DOCUMENTATION

Cell Number

II-4 (Medical or Dental - upper middle quartile)

Source

Horch and Haven (3)

Base Year of Element

1969-70 Academic Year

Collection Method

Questionnaire administered to a sample of 3,363 students who were part of a sample of college sophomores who had been selected during high school and traced through college.

Statistical Measure

Weighted mean = $57

Measure of Dispersion

Relative Standard Deviation = 1.94
Standard Deviation = $111

Reason for Selection

This estimate was derived from the Horch and Haven (3) estimate of medical and dental costs reported in Table 1 for this student type. The sample of students used was selected randomly from the universe of high school students in 1967-68, and is therefore nationally representative. The original estimate was inflated from 1969-70 to 1974-75 using the medical care component of the Consumer Price Index. Because this estimate of medical and dental costs (as well as any other) was not crossclassified by parental income, it was necessary to assume that medical and dental costs remain a constant proportion of total student expenditures. Therefore, it was calculated from Table 1 that 12.3% of total student expenditures went to medical care. By applying this ratio to total expenditures by income quartile, medical and dental expenditures were estimated.

CELL DOCUMENTATION

Cell Number

II-5 (Miscellaneous - upper middle quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $206

Measure of Dispersion

Relative Standard Deviation = 1.14
Standard Deviation = $235

Reason for Selection

The sample design was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. The element is, therefore, nationally representative. The miscellaneous figure was obtained by aggregating the mean expenditures for books, supplies, and other expenses. The estimate was inflated from 1972-73 to 1974-75 by using the overall Consumer Price Index. No other estimate for miscellaneous expenditures by parental income was found.

CELL DOCUMENTATION

Cell Number

II-6 (Total expenditures - upper middle quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $462

Measure of Dispersion

Relative Standard Deviation	= *1.31*
Standard Deviation	= *$605*

Reason for Selection

The sample design was a two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. The estimate is, therefore, nationally representative. The components of the estimate are means for room and board, transportation, books and supplies and other expenses. The total was inflated from 1972-73 to 1974-75 by using the overall Consumer Price Index. Aside from the NLS, only the May 1974 Current Population Survey provided estimates of total student expenditures by parental income. However, not all three student types were identifiable, and other median expenditures were reported.

CELL DOCUMENTATION

Cell Number

III-1 (Housing - lower middle quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $105

Measure of Dispersion

Relative Standard Deviation = 4.05
Standard Deviation = $425

Reason for Selection

The sample design was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. Thus, the element is nationally representative. Since room and board were reported as one figure, they were apportioned by using weights (47.7% for housing and 52.3% for food) derived from the Consumer Expenditure Survey's middle income budget for a family of four. In addition, the estimate presented was inflated from 1972-73 to 1974-75 using the housing component of the Consumers Price Index. This was the only estimate available for this cell.

CELL DOCUMENTATION

Cell Number

III-2 (Food - lower middle quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $123

Measure of Dispersion

Relative Standard Deviation = 4.06
Standard Deviation = $499

Reason for Selection

The sample design was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. Thus, the element is nationally representative. Since room and board were reported as one figure, they were apportioned by using weights (47.7% for housing and 52.3% for food) derived from the Consumer Expenditure Survey's middle income budget for a family of four. In addition, the estimate presented was inflated from 1972-73 to 1974-75 using the food component of the Consumer Price Index. This was the only estimate available for this cell.

CELL DOCUMENTATION

Cell Number

III-3 (Transportation to and from school - lower middle quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $114

Measure of Dispersion

Relative Standard Deviation = 1.46
Standard Deviation = $166

Reason for Selection

The sample design was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. Thus, the element is nationally representative. The estimate was inflated from 1972-73 to 1974-75 using the transportation component of the Consumer Price Index. This was the only estimate obtained for this call.

CELL DOCUMENTATION

Cell Number

III-4 (Medical or Dental - lower middle quartile)

Source

Horch and Haven (3)

Base Year of Element

1969-70 Academic Year

Collection Method

Questionnaire administered to a sample of 3,363 students who were part of a sample of college sophomores who had been selected during high school and traced through college.

Statistical Measure

Weighted mean = $68

Measure of Dispersion

Relative Standard Deviation = 1.95
Standard Deviation = $133

Reason for Selection

This estimate was derived from the Horch and Haven (3) estimate of medical and dental costs reported in Table 1 for this student type. The sample of students used was selected randomly from the universe of high school students in 1967-68, and is therefore nationally representative. The original estimate was inflated from 1969-70 to 1974-75 using the medical care component of the Consumer Price Index. Because this estimate of medical and dental costs (as well as any other) was not crossclassified by parental income, it was necessary to assume that medical and dental costs remain a constant proportion of total student expenditures. Therefore, it was calculated from Table 1 that 12.3% of total student expenditures went to medical care. By applying this ratio to total expenditures by income quartile, medical and dental expenditures were estimated.

CELL DOCUMENTATION

Cell Number

III-5 (Miscellaneous - lower middle quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $212

Measure of Dispersion

Relative Standard Deviation = 0.94
Standard Deviation = $199

Reason for Selection

The sample design was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. The element is, therefore, nationally representative. The miscellaneous figure was obtained by aggregating the mean expenditures for books, supplies, and other expenses. The estimate was inflated from 1972-73 to 1974-75 by using the overall Consumer Price Index. No other estimate for miscellaneous expenditures by parental income was found.

CELL DOCUMENTATION

Cell Number

III-6 (Total expenditures - lower middle quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $549

Measure of Dispersion

Relative Standard Deviation = 1.91
Standard Deviation = $1049

Reason for Selection

The sample design was a two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. The estimate is, therefore, nationally representative. The components of the estimate are means for room and board, transportation, books and supplies and other expenses. The total was inflated from 1972-73 to 1974-75 by using the overall Consumer Price Index. Aside from the NLS, only the May 1974 Current Population Survey provided estimates of total student expenditures by parental income. However, not all three student types were identifiable, and only median expenditures were reported.

CELL DOCUMENTATION

Cell Number

IV-1 (Housing - lower quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $76

Measure of Dispersion

Relative Standard Deviation = 2.94
Standard Deviation = $223

Reason for Selection

The sample design was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. Thus, the element is nationally representative. Since room and board were reported as one figure, they were apportioned by using weights (47.7% for housing and 52.3% for food) derived from the Consumer Expenditure Survey's middle income budget for a family of our. In addition, the estimate presented was inflated from 1972-73 to 1974-75 using the housing component of the Consumer Price Index. This was the only estimate available for this cell.

CELL DOCUMENTATION

Cell Number

IV-2 (Food - lower quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $87

Measure of Dispersion

Relative Standard Deviation = 2.98
Standard Deviation = $259

Reason for Selection

The sample design was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. Thus, the element is nationally representative. Since room and board were reported as one figure, they were apportioned by using weights (47.7% for housing and 52.3% for food) derived from the Consumer Expenditure Survey's middle income budget for a family of four. In addition, the estimate presented was inflated from 1972-73 to 1974-75 using the food component of the Consumer Price Index. This was the only estimate available for this cell.

CELL DOCUMENTATION

Cell Number

IV-3 (Transportation to and from school - lower quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $149

Measure of Dispersion

Relative Standard Deviation = 1.46
Standard Deviation = $218

Reason for Selection

The sample design was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. Thus, the element is nationally representative. The estimate was inflated from 1972-73 to 1974-75 using the transportation component of the Consumer Price Index. This was the only estimate obtained for this cell.

CELL DOCUMENTATION

Cell Number

IV-4 (Medical or Dental - lower quartile)

Source

Horch and Haven (3)

Base Year of Element

1969-70 Academic Year

Collection Method

Questionnaire administered to a sample of 3,363 students who were part of a sample of college sophomores who had been selected during high school and traced through college.

Statistical Measure

Weighted mean = $67

Measure of Dispersion

Relative Standard Deviation = 2.03
Standard Deviation = $136

Reason for Selection

This estimate was derived from the Horch and Haven (3) estimate of medical and dental costs reported in Table 1 for this student type. The sample of students used was selected randomly from the universe of high school students in 1967-68, and is therefore nationally representative. The original estimate was inflated from 1969-70 to 1974-75 using the medical care component of the Consumer Price Index. Because this estimate of medical and dental costs (as well as any other) was not crossclassified by parental income, it was necessary to assume that medical and dental costs remain a constant proportion of total student expenditures. Therefore, it was calculated from Table 1 that 12.3% of total student expenditures went to medical care. By applying this ratio to total expenditures by income quartile, medical and dental expenditures were estimated.

CELL DOCUMENTATION

Cell Number

IV-5 (Miscellaneous - lower quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $231

Measure of Dispersion

Relative Standard Deviation = 0.85
Standard Deviation = $196

Reason for Selection

The sample design was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. The element is, therefore, nationally representative. The miscellaneous figure was obtained by aggregating the mean expenditures for books, supplies, and other expences. The estimate was inflated from 1972-73 to 1974-75 by using the overall Consumer Price Index. No other estimate for miscellaneous expenditures by parental income was found.

CELL DOCUMENTATION

Cell Number

IV-6 (Total expenditures - lower quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $541

Measure of Dispersion

Relative Standard Deviation = 1.17
Standard Deviation = $633

Reason for Selection

The sample design was a two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. The estimate is, therefore, nationally representative. The components of the estimate are means for room and board, transportation, books and supplies and other expenses. The total was inflated from 1972-73 to 1974-75 by using the overall Consumer Price Index. Aside from the NLS, only the May 1974 Current Population Survey provided estimates of total student expenditures by parental income. However, not all three student types were identifiable, and only median expenditures were reported.

CELL DOCUMENTATION-TABLE 3

CELL DOCUMENTATION

Cell Number

I-1 (Housing - upper quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $594

Measure of Dispersion

Relative Standard Deviation = 0.57
Standard Deviatio = $339

Reason for Selection

The sample design was a stratified two-stage national probabiliby sample with schools as first-stage sampling units and students as second-stage units. The element is nationally representative. Since room and board were reported as one figure, they were apportioned based on the same weights used for independent students as reported by Horch (2) (55% for housing and 45% for food). It was hypothesized that the dependent student living off-campus and the independent student living off-campus faced similar expenditure situations with respect to housing costs. In addition, the housing estimate was inflated from 1972-73 to 1974-75 using the housing component of the Consumer Price Index. This was the only estimate available for this cell.

CELL DOCUMENTATION

Cell Number

I-2 (Food - upper quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $518

Measure of Dispersion

Relative Standard Deviation = 0.57
Standard Deviation = $295

Reason for Selection

The sample design was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. The element is nationally representative. Since room and board were reported as one figure, they were apportioned based on the same weights used for independent students as reported by Horch (2) (55% for housing and 45% for food). It was hypothesized the dependent student living off-campus and the independent student living off-campus faced similar expenditure situations with respect to food costs. In addition, the food estimate was inflated from 1972-73 to 1974-75 using the food component of the Consumer Price Index. No other estimate was found for this cell.

CELL DOCUMENTATION

Cell Number

I-3 (Transportation to and from school - upper quartile)

Source

Bureau of the Census (4)

Base Year of Element

1973-74 Fiscal Year (July through June)

Collection Method

Drop-off questionnaires given to households which had indicated on a supplement to the October 1973 Current Population Survey the presence of postsecondary schooling of at least one member of the family.

Statistical Measure

Median = $119

Measure of Dispersion

Relative Standard Deviation = .65
Standard Deviation = $77

Reason for Selection

This was the only source of data obtained that delineated expenditures for transportation to and from school. Other figures only identified total transportation expenses, including trips to and from home. The sample was weighted by the Census Bureau to be nationally representative. The figure reported converted to a nine-month measure (multiplied by .75) and inflated from 1973-74 to 1974-75 using the transportation component of the Consumer Price Index.

Because the Census Bureau did not provide a breakdown of transportation costs by parental income of the student, it was necessary to assume that transportation costs remain a constant proportion of overall student expenses. Therefore, it was calculated from Table 1 that 7.4% of total expenditures by dependent students not living at home were devoted to transportation to and from class. By applying this ratio to total expenditures by income quartile of the student group, transportation expenditures were estimated.

CELL DOCUMENTATION

Cell Number

I-4 (Medical or Dental - upper quartile)

Source

Horch and Haven (3)

Base Year of Element

1969-70 Academic Year

Collection Method

Questionnaire administered to a sample of 3,363 students who were part of a sample of college sophomores who had been selected during high school and traced through college.

Statistical Measure

Weighted mean = $67

Measure of Dispersion

Relative Standard Deviation = 1.94
Standard Deviation = $130

Reason for Selection

This estimate was derived from the Horch and Haven (3) estimate of medical and dental costs reported in Table 1 for this student type. The sample of students used was selected randomly from the universe of high school students in 1967-68, and is therefore nationally representative. The original estimate was inflated from 1969-70 to 1974-75 using the medical care component of the Consumer Price Index. Because this estimate of medical and dental costs (as well as any other) was not crossclassified by parental income, it was necessary to assume that medical and dental costs remain a constant proportion of total student expenditures. Therefore, it was calculated from Table 1 that 4.1% of total student expenditures went to medical care. By applying this ratio to total expenditures by income quartile, medical and dental expenditures were estimated.

CELL DOCUMENTATION

Cell Number

I-5 (Miscellaneous - upper quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted measure = $400

Measure of Dispersion

Relative Standard Deviation = 0.78
Standard Deviation = $312

Reason for Selection

The sample design was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. The element is, therefore, nationally representative. The miscellaneous figure was obtained by aggregating the mean expenditures for books, supplies, and other expenses. The estimate was inflated from 1972-73 to 1974-75 by using the overall Consumer Price Index. No other estimate for miscellaneous expenditures by parental income was found.

CELL DOCUMENTATION

Cell Number

I-6 (Total expenditures - upper quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $1621

Measure of Dispersion

Relative Standard Deviation = 0.58
Standard Deviation = $940

Reason for Selection

The sample design was a two-stage national probability with schools as first-stage sampling units and students as second-stage units. The estimate is, therefore, nationally representative. The components of the estimate are means for room and board, transportation, books and supplies and other expenses. The total was inflated from 1972-73 to 1974-75 by using the overall Consumer Price Index. Aside from the NLS, only the May 1974 Current Population Survey provided estimates of total student expenditures by parental income. However, not all three student types were identifiable, and only median expenditures were reported.

CELL DOCUMENTATION

Cell Number

II-1 (Housing - upper middle quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $537

Measure of Dispersion

Relative Standard Deviation = 0.62
Standard Deviation = $333

Reason for Selection

The sample design was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. The element is nationally representative. Since room and board were reported as one figure, they were apportioned based on the same weights used for independent students as reported by Horch (2) (55% for housing and 45% for food). It was hypothesized that the dependent student living off-campus and the independent student living off-campus faced similar expenditure situations with respect to housing costs. In addition, the housing estimate was inflated from 1972-73 to 1974-75 using the housing component of the Consumer Price Index. This was the only estimate available for this cell.

CELL DOCUMENTATION

Cell Number

II-2 (Food - upper middle quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $469

Measure of Dispersion

Relative Standard Deviation = 0.62
Standard Deviation = $291

Reason for Selection

The sample design was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. The element is nationally representative. Since room and board were reported as one figure, they were apportioned based on the same weights used for independent students as reported by Horch (2) (55% for housing and 45% for food). It was hypothesized the dependent student living off-campus and the independent student living off-campus faced similar expenditure situations with respect to food costs. In addition, the food estimate was inflated from 1972-73 to 1974-75 using the food component of the Consumer Price Index. No other estimate was found for this cell.

CELL DOCUMENTATION

Cell Number

II-3 (Transportation to and from school - upper middle quartile)

Source

Bureau of the Census (4)

Base Year of Element

1973-74 Fiscal Year (July through June)

Collection Method

Drop-off questionnaires given to households which had indicated on a supplement to the October 1973 Current Population Survey the presence of postsecondary schooling of at least one member of the family.

Statistical Measure

Median = $112

Measure of Dispersion

Relative Standard Deviation = .65
Standard Deviation = $73

Reason for Selection

This was the only source of data obtained that delineated expenditures for transportation to and from school. Other figures only identified total transportation expenses, including trips to and from home. The sample was weighted by the Census Bureau to be nationally representative. The figure reported converted to a nine-month measure (multiplied by .75) and inflated from 1973-74 to 1974-75 using the transportation component of the Consumer Price Index.

Because the Census Bureau did not provide a breakdown of transportation costs by parental income of the student, it was necessary to assume that transportation costs remain a constant proportion of overall student expenses. Therefore, it was calculated from Table 1 that 7.4% of total expenditures by dependent students not living at home were devoted to transportation to and from class. By applying this ratio to total expenditures by income quartile of the student group, transportation expenditures were estimated.

CELL DOCUMENTATION

Cell Number

II-4 (Medical or Dental - upper middle quartile)

Source

Horch and Haven (3)

Base Year of Element

1969-70 Academic Year

Collection Method

Questionnaire administered to a sample of 3,363 students who were part of a sample of college sophomores who had been selected during high school and traced through college.

Statistical Measure

Weighted mean = $63

Measure of Dispersion

Relative Standard Deviation = 1.93
Standard Deviation = $122

Reason for Selection

This estimate was derived from the Horch and Haven (3) estimate of medical and dental costs reported in Table 1 for this student type. The sample of students used was selected randomly from the universe of high school students in 1967-68, and is therefore nationally representative. The original estimate was inflated from 1969-70 to 1974-75 using the medical care component of the Consumer Price Index. Because this estimate of medical and dental costs (as well as any other) was not crossclassified by parental income, it was necessary to assume that medical and dental costs remain a constant proportion of total student expenditures. Therefore, it was calculated from Table 1 that 4.1% of total student expenditures went to medical care. By applying this ratio to total expenditures by income quartile, medical and dental expenditures were estimated.

CELL DOCUMENTATION

Cell Number

II-5 (Miscellaneous - upper middle quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $416

Measure of Dispersion

Relative Standard Deviation = 0.74
Standard Deviation = $308

Reason for Selection

The sample design was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. The element is, therefore, nationally representative. The miscellaneous figure was obtained by aggregating the mean expenditures for books, supplies, and other expenses. The estimate was inflated from 1972-73 to 1974-75 by using the overall Consumer Price Index. No other estimate for miscellaneous expenditures by parental income was found.

CELL DOCUMENTATION

Cell Number

II-6 (Total expenditures - upper middle quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $1528

Measure of Dispersion

Relative Standard Deviation = 0.56
Standard Deviation = $856

Reason for Selection

The sample design was a two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. The estimate is, therefore, nationally representative. The components of the estimate are means for room and board, transportation, books and supplies and other expenses. The total was inflated from 1972-73 to 1974-75 by using the overall Consumer Price Index. Aside from the NLS, only the May 1974 Current Population Survey provided estimates of total student expenditures by parental income. However, not all three student types were identifiable, and only median expenditures were reported.

CELL DOCUMENTATION

Cell Number

III-1 (Housing - lower middle quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $561

Measure of Dispersion

Relative Standard Deviation = 0.56
Standard Deviation = $314

Reason for Selection

The sample design was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. The element is nationally representative. Since room and board were reported as one figure, they were apportioned on the same weights used for independent students as reported by Horch (2) (55% for housing and 45% for food). It was hypothesized that the dependent student living off-campus and the independent student living off-campus faced similar expenditure situations with respect to housing costs. In addition, the housing estimate was inflated from 1972-73 to 1974-75 using the housing component of the Consumer Price Index. This was the only estimate available for this cell.

CELL DOCUMENTATION

Cell Number

III-2 (Food - lower middle quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $489

Measure of Dispersion

Relative Standard Deviation = 0.56
Standard Deviation = $274

Reason for Selection

The sample design was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. The element is nationally representative. Since room and board were reported as one figure, they were apportioned based on the same weights used for independent students as reported by Horch (2) (55% for housing and 45% for food). It was hypothesized the dependent student living off-campus and the independent student living off-campus faced similar expenditure situations with respect to food costs. In addition, the food estimate was inflated from 1972-73 to 1974-75 using the food component of the Consumer Price Index. No other estimate was found for this cell.

CELL DOCUMENTATION

Cell Number

III-3 (Transportation to and from school - lower middle quartile)

Source

Bureau of the Census (4)

Base Year of Element

1973-74 Fiscal Year (July through June)

Collection Method

Drop-off questionnaires given to households which had indicated on a supplement to the October 1973 Current Population Survey the presence of postsecondary schooling of at least one member of the family.

Statistical Measure

Median = $119

Measure of Dispersion

Relative Standard Deviation = .65
Standard Deviation = $77

Reason for Selection

This was the only source of data obtained that delineated expenditures for transportation to and from school. Other figures only identified total transportation expenses, including trips to and from home. The sample was weighted by the Census Bureau to be nationally representative. The figure reported converted to a nine-month measure (multiplied by .75) and inflated from 1973-74 to 1974-75 using the transportation component of the Consumer Price Index.

Because the Census Bureau did not provide a breakdown of transportation costs by parental income of the student, it was necessary to assume that transportation costs remain a constant proportion of overall student expenses. Therefore, it was calculated from Table 1 that 7.4% of total expenditures by dependent students not living at home were devoted to transportation to and from class. By applying this ratio to total expenditures by income quartile of the student group, transportation expenditures were estimated.

CELL DOCUMENTATION

Cell Number

III-4 (Medical or Dental - lower middle quartile)

Source

Horch and Haven (3)

Base Year of Element

1969-70 Academic Year

Collection Method

Questionnaire administered to a sample of 3,363 students who were part of a sample of college sophomores who had been selected during high school and traced through college.

Statistical Measure

Weighted mean = $66

Measure of Dispersion

Relative Standard Deviation = 1.93
Standard Deviation = $125

Reason for Selection

This estimate was derived from the Horch and Haven (3) estimate of medical and dental costs reported in Table 1 for this student type. The sample of students used was selected randomly from the universe of high school students in 1967-68, and is therefore nationally representative. The original estimate was inflated from 1969-70 to 1974-75 using the medical care component of the Consumer Price Index. Because this estimate of medical and dental costs (as well as any other) was not crossclassified by parental income, it was necessary to assume that medical and dental costs remain a constant proportion of total student expenditures. Therefore, it was calculated from Table 1 that 4.1% of total student expenditures went to medical care. By applying this ratio to total expenditures by income quartile, medical and dental expenditures were estimated.

CELL DOCUMENTATION

Cell Number

III-5 (Miscellaneous - lower middle quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $392

Measure of Dispersion

Relative Standard Deviation = 0.65
Standard Deviation = $255

Reason for Selection

The sample design was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. The element is, therefore, nationally representative. The miscellaneous figure was obtained by aggregating the mean expenditures for books, supplies, and other expenses. The estimate was inflated from 1972-73 to 1974-75 by using the overall Consumer Price Index. No other estimate for miscellaneous expenditures by parental income was found.

CELL DOCUMENTATION

Cell Number

III-6 (Total expenditures - lower middle quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $1613

Measure of Dispersion

Relative Standard Deviation = 0.43
Standard Deviation = $694

Reason for Selection

The sample design was a two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. The estimate is, therefore, nationally representative. The components of the estimate are means for room and board, transportation, books and supplies and other expenses. The total was inflated from 1972-73 to 1974-75 by using the overall Consumer Price Index. Aside from the NLS, only the May 1974 Current Population Survey provided estimates of total student expenditures by parental income. However, not all three student types were identifiable, and only median expenditures were reported.

CELL DOCUMENTATION

Cell Number

IV-1 (Housing - lower quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $606

Measure of Dispersion

Relative Standard Deviation = 0.71
Standard Deviation = $430

Reason for Selection

The sample design was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. The element is nationally representative. Since room and board were reported as one figure, they were apportioned based on the same weights used for independent students as reported by Horch (2) (55% for housing and 45% for food). It was hypothesized that the dependent student living off-campus and the independent student living off-campus faced similar expenditure situations with respect to housing costs. In addition, the housing estimate was inflated from 1972-73 to 1974-75 using the housing component of the Consumer Price Index. This was the only estimate available for this cell.

CELL DOCUMENTATION

Cell Number

IV-2 (Food - lower quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $529

Measure of Dispersion

Relative Standard Deviation = 0.71
Standard Deviation = $376

Reason for Selection

The sample design was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. The element is nationally representative. Since room and board were reported as one figure, they were apportioned based on the same weights used for independent students as reported by Horch (2) (55% for housing and 45% for food). It was hypothesized the dependent student living off-campus and the independent student living off-campus faced similar expenditure situations with respect to food costs. In addition, the food estimate was inflated from 1972-73 to 1974-75 using the food component of the Consumer Price Index. No other estimate was found for this cell.

CELL DOCUMENTATION

Cell Number

IV-3 (Transportation to and from school - lower quartile)

Source

Bureau of the Census (4)

Base Year of Element

1973-74 Fiscal Year (July through June)

Collection Method

Drop-off questionnaires given to households which had indicated on a supplement to the October 1973 Current Population Survey the presence of postsecondary schooling of at least one member of the family.

Statistical Measure

Median = $124

Measure of Dispersion

Relative Standard Deviation = .65
Standard Deviation = $81

Reason for Selection

This was the only source of data obtained that delineated expenditures for transportation to and from school. Other figures only identified total transportation expenses, including trips to and from home. The sample was weighted by the Census Bureau to be nationally representative. The figure reported converted to a nine-month measure (multiplied by .75) and inflated from 1973-74 to 1974-75 using the transportation component of the Consumer Price Index.

Because the Census Bureau did not provide a breakdown of transportation costs by parental income of the student, it was necessary to assume that transportation costs remain a constant proportion of overall student expenses. Therefore, it was calculated from Table 1 that 7.4% of total expenditures by dependent students not living at home were devoted to transportation to and from class. By applying this ratio to total expenditures by income quartile of the student group, transportation expenditures were estimated.

CELL DOCUMENTATION

Cell Number

IV-4 (Medical or Dental - lower quartile)

Source

Horch and Haven (3)

Base Year of Element

1969-70 Academic Year

Collection Method

Questionnaire administered to a sample of 3,363 students who were part of a sample of college sophomores who had been selected during high school and traced through college.

Statistical Measure

Weighted mean = $69

Measure of Dispersion

Relative Standard Deviation = 1.94
Standard Deviation = $134

Reason for Selection

This estimate was derived from the Horch and Haven (3) estimate of medical and dental costs reported in Table 1 for this student type. The sample of students used was selected randomly from the universe of high school students in 1967-68, and is therefore nationally representative. The original estimate was inflated from 1967-70 to 1974-75 using the medical care component of the Consumer Price Index. Because this estimate of medical and dental costs (as well as any other) was not crossclassified by parental income, it was necessary to assume that medical and dental costs remain a constant proportion of total student expenditures. Therefore, it was calculated from Table 1 that 4.1% of total student expenditures went to medical care. By applying this ratio to total expenditures by income quartile, medical and dental expenditures were estimated.

CELL DOCUMENTATION

Cell Number

IV-5 (Miscellaneous - lower quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $450

Measure of Dispersion

Relative Standard Deviation = 0.85
Standard Deviation = $383

Reason for Selection

The sample design was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. The element is, therefore, nationally representative. The miscellaneous figure was obtained by aggregating the mean expenditures for books, supplies, and other expenses. The estimate was inflated from 1972-73 to 1974-75 by using the overall Consumer Price Index. No other estimate for miscellaneous expenditures by parental income was found.

CELL DOCUMENTATION

Cell Number

IV-6 (Total expenditures - lower quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $1681

Measure of Dispersion

Relative Standard Deviation = 0.58
Standard Deviation = $975

Reason for Selection

The sample design was a two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. The estimate is, therefore, nationally representative. The components of the estimate are means for room and board, transportation, books and supplies and other expenses. The total was inflated from 1972-73 to 1974-75 by using the overall Consumer Price Index. Aside from the NLS, only the May 1974 Current Population Survey provided esimtates of total student expenditures by parental income. However, not all three student types were identifiable, and only median expenditures were reported.

CELL DOCUMENTATION-TABLE 4

CELL DOCUMENTATION

Cell Number

I-1 (Housing - upper quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $469

Measure of Dispersion

Relative Standard Deviation = 0.65
Standard Deviation = $305

Reason for Selection

The sample design was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. The element is nationally representative. Since room and board were reported as one figure, they were apportioned based on the same weights used for independent students as reported by Horch (2) (55% for housing and 45% for food). In addition, the housing estimate was inflated from 1972-73 to 1974-75 using the housing component of the Consumer Price Index. This was the only estimate available for this cell.

CELL DOCUMENTATION

Cell Number

I-2 (Food - upper quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $411

Measure of Dispersion

Relative Standard Deviation = 0.65
Standard Deviation = $267

Reason for Selection

The sample design was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. The element is nationally representative. Since room and board were reported as one figure, they were apportioned based on the same weights used for independent students as reported by Horch (2) (55% for housing and 45% for food). In addition, the food estimate was inflated from 1972-73 to 1974-75 using the food component of the Consumer Price Index. No other estimate was found for this cell.

CELL DOCUMENTATION

Cell Number

I-3 (Transportation to and from school - upper quartile)

Source

Bureau of the Census (4)

Base Year of Element

1973-74 Fiscal Year (July through June)

Collection Method

Drop-off questionnaires given to households which had indicated on a supplement to the October 1973 Current Population Survey the presence of postsecondary schooling of at least one member of the family.

Statistical Measure

Median = $143

Measure of Dispersion

Relative Standard Deviation = .65
Standard Deviation = $93

Reason for Selection

This was the only source of data obtained that delineated expenditures for transportation to and from school. Other figures only identified total transportation expenses, including trips to and from home. The sample was weighted by the Census Bureau to be nationally representative. The figure reported converted to a nine-month measure (multiplied by .75) and inflated from 1973-74 to 1974-75 using the transportation component of the Consumer Price Index.

Because the Census Bureau did not provide a breaddown of transportation costs by parental income of the student, it was necessary to assume that transportation costs remain a constant proportion of overall student expenses. It was determined that 10.0% of total student expenditures were devoted to transportation to and from class. By applying this ratio to total expenditures by income quartile of this student group, transportation expenditures were estimated.

CELL DOCUMENTATION

Cell Number

I-4 (Medical or Dental - upper quartile)

Source

Horch (2)

Base Year of Element

1968-69 Fiscal Year (July through June)

Collection Method

Element is based on a random sample of approximately 20,000 Students' Confidential Statements submitted to the College Scholarship Service.

Statistical Measure

Weighted mean = $80

Measure of Dispersion

Relative Standard Deviation = 1.96
Standard Deviation = $157

Reason for Selection

This was the only source of data identified which reported medical and dental expenditures for independent students. The estimate is nationally representative. Although the sample only included students who submitted confidential statements to the CSS, the mean maintenance expenses for SCS filers is $2,265, and the mean maintenance expenses for persons aged 20-35 as reported in the USDA moderate level budget is $2,395. The high degree of similarity between these two groups indicates that the above estimate is quite reasonable. The reasonability of this estimate is added to by the magnitude of the sample size (2,229 males and 2,237 females). The estimate was inflated from 1968-69 to 1974-75 by using the medical care component of the Consumer Price Index.

Because this estimate of medical and dental costs (as well as any other) was not crossclassified by parental income, it was necessary to assume that medical and dental costs remain a constant proportion of total student expenditures. It was determined that 5.6% of total student expenditures went to medical care. By applying this ratio to total expenditures by income quartile, medical and dental expenditures were estimated.

CELL DOCUMENTATION

Cell Number

I-5 (Miscellaneous - upper quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $399

Measure of Dispersion

Relative Standard Deviation = 1.04
Standard Deviation = $415

Reason for Selection

The sample design was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. The element is, therefore, nationally representative. The miscellaneous figure was obtained by aggregating the mean expenditures for books, supplies, and other expenses. The estimate was inflated from 1972-73 to 1974-1975 by using the overall Consumer Price Index. No other estimate for miscellaneous expenditures by parental income was found.

CELL DOCUMENTATION

Cell Number

I-6 (Total Expenditures - upper quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $1431

Measure of Dispersion

Relative Standard Deviation = 0.64
Standard Deviation = $916

Reason for Selection

The sample design was a two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. The estimate is, therefore, nationally representative. The components of the estimate are means for room and board, transportation, books and supplies and other expenses. The total was inflated from 1972-73 to 1974-75 by using the overall Consumer Price Index. Aside from the NLS, only the May 1974 Current Population Survey provided estimates of total student expenditures by parental income. However, not all three student types were identifiable, and only median expenditures were reported.

CELL DOCUMENTATION

Cell Number

II-1 (Housing - upper middle quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $452

Measure of Dispersion

Relative Standard Deviation = 0.76
Standard Deviation = $344

Reason for Selection

The sample design was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. The element is nationally representative. Since room and board were reported as one figure, they were apportioned based on the same weights used for independent students as reported by Horch (2) (55% for housing and 45% for food). In addition, the housing esimate was inflated from 1972-73 to 1974-75 using the housing component of the Consumer Price Index. This was the only estimate available for this cell.

CELL DOCUMENTATION

Cell Number

II-2 (Food - upper middle quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random stample of the universe of all 1972 twelfth grade students enrolled in all public, private, church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $395

Measure of Dispersion

Relative Standard Deviation = 0.76
Standard Deviation = $300

Reason for Selection

The sample design was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. The element is nationally representative. Since room and board were reported as one figure, they were apportioned based on the same weights used for independent students as reported by Horch (2) (55% for housing and 45% for food). In addition, the food estimate was inflated from 1972-73 to 1974-75 using the food component of the Consumer Price Index. No other estimate was found for this cell.

CELL DOCUMENTATION

Cell Number

II-3 (Transportation to and from school - upper middle quartile)

Source

Bureau of the Census (4)

Base Year of Element

1973-74 Fiscal Year (July through June)

Collection Method

Drop-off questionnaires given to households which had indicated on a supplement to the October 1973 Current Population Survey the presence of postsecondary schooling of at least one member of the family.

Statistical Measure

Median = $131

Measure of Dispersion

Relative Standard Deviation = .65
Standard Deviation = $85

Reason for Selection

This was the only source of data obtained that delineated expenditures for transportation to and from school. Other figures only identified total transportation expenses, including trips to and from home. The sample was weighted by the Census Bureau to be nationally representative. The figure reported converted to a nine-month measure (multiplied by .75) and inflated from 1973-74 to 1974-75 using the transportation component of the Consumer Price Index.

Because the Census Bureau did not provide a breakdown of transportation costs by parental income of the student, it was necessary to assume that transportation costs remain a constant proportion of overall student expenses. It was determined that 10.0%of total student expenditures were devoted to transportation to and from class. By applying this ratio to total expenditures by income quartile of the student group, transportation expenditures were estimated.

CELL DOCUMENTATION

Cell Number

II-4 (Medical or Dental - upper middle quartile)

Source

Horch (2)

Base Year of Element

1968-69 Fiscal Year (July through June)

Collection Method

Element is based on a random sample of approximately 20,000 Students' Confidential Statements submitted to the College Scholarship Service.

Statistical Measure

Weighted mean = $74

Measure of Dispersion

Relative Standard Deviation = 1.96
Standard Deviation = $145

Reason for Selection

This was the only source of data identified which reported medical and dental expenditures for independent students. The estimate is nationally representative. Although the sample only included students who submitted confidential statements to the CSS, the mean maintenance expenses for SCS filers is $2,265, and the mean maintenance expenses for persons aged 20-35 as reported in the USDA moderate level budget if $2,395. The high degree of similarity between these two groups indicates that the above estimate is quite reasonable. The reasonability of this estimate is added to by the magnitude of the sample size (2,229 males and 2,237 females). The estimate was inflated from 1968-69 to 1975-75 by using the medical care component of the Consumer Price Index.

Because this estimate of medical and dental costs (as well as any other) was not crossclassified by parental income, it was necessary to assume that medical and dental costs remain a constant proportion of total student expenditures. It was determined that 5.6% of total student expenditures went to medical care. By applying this ratio to total expenditures by income quartile, medical and dental expenditures were estimated.

CELL DOCUMENTATION

Cell Number

II-5 (Miscellaneous - upper middle quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $350

Measure of Dispersion

Relative Standard Deviation = 0.78
Standard Deviation = $273

Reason for Selection

The sample design was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. The element is, therefore, nationally representative. The miscellaneous figure was obtained by aggregating the mean expenditures for books, supplies, and other expenses. The estimate was inflated from 1972-73 to 1974-75 by using the overall Consumer Price Index. No other estimate for miscellaneous expenditures by parental income was found.

CELL DOCUMENTATION

Cell Number

II-6 (Total Expenditures - upper middle quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $1313

Measure of Dispersion

Relative Standard Deviation = 0.64
Standard Deviation = $840

Reason for Selection

The sample design was a two-stage national probability sample with schools as first-step sampling units and students as second-stage units. The estimate is, therefore, nationally representative. The components of the estimate are means for room and board, transportation, books and supplies and other expenses. The total was inflated from 1972-73 to 1974-75 by using the overall Consumer Price Index. Aside from the NLS, only the May 1974 Current Population Survey provided estimates of total student expenditures by parental income. However, not all three student types were identifiable, and only median expenditures were reported.

CELL DOCUMENTATION

Cell Number

III-1 (Housing - lower middle quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $326

Measure of Dispersion

Relative Standard Deviation = 1.10
Standard Deviation = $359

Reason for Selection

The sample design was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. The element is nationally representative. Since room and board were reported as one figure, they were apportioned based on the same weights used for independent students as reported by Horch (2) (55% for housing and 45% for food). In addition, the housing estimate was inflated from 1972-73 to 1974-75 using the housing component of the Consumer Price Index. This was the only estimate available for this cell.

CELL DOCUMENTATION

Cell Number

III-2 (Food - lower middle quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $286

Measure of Dispersion

Relative Standard Deviation = 1.10
Standard Deviation = $315

Reason for Selection

The sample design was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. The element is nationally representative. Since room and board were reported as one figure, they were apportioned based on the same weights used for independent students as reported by Horch (2) (55% for housing and 45% for food). In addition, the food estimate was inflated from 1972-73 to 1974-75 using the food component of the Consumer Price Index. No other estimate was found for this cell.

CELL DOCUMENTATION

Cell Number

III-3 (Transportation to and from school - lower middle quartile)

Source

Bureau of the Census (4)

Base Year of Element

1973-74 Fiscal Year (July through June)

Collection Method

Drop-off questionnaires given to households which had indicated on a supplement to the October 1973 Current Population Survey the presence of postsecondary schooling of at least one member of the family.

Statistical Measure

Median = $97

Measure of Dispersion

Relative Standard Deviation = .65
Standard Deviation = $63

Reason for Selection

This was the only source of data obtained that delineated expenditures for transportation to and from school. Other figures only identified total transportation expenses, including trips to and from home. The sample was weighted by the Census Bureau to be nationally representative. The figure reported converted to a nine-month measure (multiplied by .75) and inflated from 1973-74 to 1974-75 using the transportation component of the Consumer Price Index.

Because the Census Bureau did not provide a breakdown of transportation costs by parental income of the student, it was necessary to assume that transportation costs remain a constant proportion of overall student expenses. It was determined that 10.0% of total student expenditures were devoted to transportation to and from class. By applying this ratio to total expenditures by income quartile of the student group, transportation expenditures were estimated.

CELL DOCUMENTATION

Cell Number

III-4 (Medical or Dental - lower middle quartile)

Source

Horch (2)

Base Year of Element

1968-69 Fiscal Year (July through June)

Collection Method

Element is based on a random sample of approximately 20,000 Students' Confidential Statements submitted to the College Scholarship Service.

Statistical Measure

Weighted mean = $54

Measure of Dispersion

Relative Standard Deviation = 1.98
Standard Deviation = $107

Reason for Selection

This was the only source of data identified which reported medical and dental expenditures for independent students. The estimate is nationally representative. Although the sample only included students who submitted confidential statements to the CSS, the mean maintenance expenses for SCS filers is $2,265, and the mean maintenance expenses for persons aged 20-35 as reported in the USDA moderate level budget is $2,395. The high degree of similarity between these two groups indicates that the above estimate is quite reasonable. The reasonability of this estimate is added to by the magnitude of the sample size (2,229 males and 2,237 females). The estimate was inflated from 1968-69 to 1974-75 by using the medical care component of the Consumer Price Index.

Because this estimate of medical and dental costs (as well as any other) was not crossclassified by parental income, it was necessary to assume that medical and dental costs remain a constant proportion of total student expenditures. It was determined that 5.6% of total student expenditures went to medical care. By applying this ratio to total expenditures by income quartile, medical and dental expenditures were estimated.

CELL DOCUMENTATION

Cell Number

III-5 (Miscellaneous - lower middle quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $269

Measure of Dispersion

Relative Standard Deviation = 0.87
Standard Deviation = $234

Reason for Selection

The sample design was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. The element is, therefore, nationally representative. The miscellaneous figure was obtained by aggregating the mean expenditures for books, supplies, and other expenses. The estimate was inflated from 1972-73 to 1974-75 by using the overall Consumer Price Index. No other estimate for miscellaneous expenditures by parental income was found.

CELL DOCUMENTATION

Cell Number

III-6 (Total Expenditures - lower middle quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $967

Measure of Dispersion

Relative Standard Deviation = 0.84
Standard Deviation = $812

Reason for Selection

The sample design was a two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. The estimate is, therefore, nationally representative. The components of the estimate are means for room and board, transportation, books and supplies and other expenses. The total was inflated from 1972-73 to 1974-75 by using the overall Consumer Price Index. Aside from the NLS, only the May 1974 Current Population Survey provided estimates of total student expenditures by parental income. However, not all three student types were identifiable, and only median expenditures were reported.

CELL DOCUMENTATION

Cell Number

IV-1 (Housing - lower quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $397

Measure of Dispersion

Relative Standard Deviation = 0.84
Standard Deviation = $333

Reason for Selection

The sample design was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. The element is nationally representative. Since room and board were reported as one figure, they were apportioned based on the same weights used for independent students as reported by Horch (2) (55% for housing and 45% for food). In addition, the housing estimate was inflated from 1972-73 to 1974-75 using the housing component of the Consumer Price Index. This was the only estimate available for this cell.

CELL DOCUMENTATION

Cell Number

IV-2 (Food - lower quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $347

Measure of Dispersion

Relative Standard Deviation = 0.84
Standard Deviation = $291

Reason for Selection

The sample design was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. The element is nationally representative. Since room and board were reported as one figure, they were apportioned based on the same weights used for independent students as reported by Horch (2) (55% for housing and 45% for food). In addition, the food estimate was inflated from 1972-73 to 1974-75 using the food component of the Consumer Price Index. No other estimate was found for this cell.

CELL DOCUMENTATION

Cell Number

IV-3 (Transportation to and from school - lower quartile)

Source

Bureau of the Census (4)

Base Year of Element

1973-74 Fiscal Year (July through June)

Collection Method

Drop-off questionnaires given to households which had indicated on a supplement to the October 1973 Current Population Survey the presence of postsecondary schooling of at least one member of the family.

Statistical Measure

Median = $115

Measure of Dispersion

Relative Standard Deviation = .65
Standard Deviation = $75

Reason for Selection

This was the only source of data obtained that delineated expenditures for transportation to and from school. Other figures only identified total transportation expenses, including trips to and from home. The sample was weighted by the Census Bureau to be nationally representative. The figure reported converted to a nine-month measure (multiplied by .75) and inflated from 1973-74 to 1974-75 using the transportation component of the Consumer Price Index.

Because the Census Bureau did not provide a breakdown of transportation costs by parental income of the student, it was necessary to assume that transportation costs remain a constant proportion of overall student expenses. It was determined that 10.0% of total student expenditures were devoted to transportation to and from class. By applying this ratio to total expenditures by income quartile of the student group, transportation expenditures were estimated.

CELL DOCUMENTATION

Cell Number

IV-4 (Medical or Dental - lower quartile)

Source

Horch (2)

Base Year of Element

1968-69 Fiscal Year (July through June)

Collection Method

Element is based on a random sample of approximately 20,000 Students' Confidential Statements submitted to the College Scholarship Service.

Statistical Measure

Weighted mean = $64

Measure of Dispersion

Relative Standard Deviation = 1.95
Standard Deviation = $125

Reason for Selection

This was the only source of data identified which reported medical and dental expenditures for independent students. The estimate is nationally representative. Although the sample only included students who submitted confidential statements to the CSS, the mean maintenance expenses for SCS filers if $2,265, and the mean maintenance expenses for persons aged 20-35 as reported in the USDA moderate level budget is $2,395. The high degree of similarity between these two groups indicates that the above estimate is quite reasonable. The reasonability of this estimate is added to by the magnitude of the sample size (2,229 males and 2,237 females). The estimate was inflated from 1968-69 to 1974-75 by using the medical care component of the Consumer Price Index.

Because this estimate os medical and dental costs (as well as any other) was not crossclassified by parental income, it was necessary to assume that medical and dental costs remain a constant proportion of total student expenditures. It was determined that 5.6% of total student expenditures went to medical care. By applying this ratio to total expenditures by income quartile, medical and dental expenditures were estimated.

CELL DOCUMENTATION

Cell Number

IV-5 (Miscellaneous - lower quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $318

Measure of Dispersion

Relative Standard Deviation = 0.84
Standard Deviation = $267

Reason for Selection

The sample design was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. The element is, therefore, nationally representative. The miscellaneous figure was obtained by aggregating the mean expenditures for books, supplies, and other expenses. The estimate was inflated from 1972-73 to 1974-75 by using the overall Consumer Price Index. No other estimate for miscellaneous expenditures by parental income was found.

CELL DOCUMENTATION

Cell Number

IV-6 (Total Expenditures - lower quartile)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $1149

Measure of Dispersion

Relative Standard Deviation = 0.66
Standard Deviation = $758

Reason for Selection

The sample design was a two-stage national probability sample with schools as first-stage sampling units and students as second-stage units. The estimate is, therefore, nationally representative. The components of the estimate are means for room and board, transportation, books and supplies and other expenses. The total was inflated from 1972-73 to 1974-75 by using the overall Consumer Price Index. Aside from the NLS, only the May 1974 Current Population Survey provided estimates of total student expenditures by parental income. However, not all three student types were identifiable, and only median expenditures were reported.

CELL DOCUMENTATION-TABLE 5

CELL DOCUMENTATION

Cell Number

I-1 (Books and Supplies - dependent students at home)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $129

Measure of Dispersion

Relative Standard Deviation = 0.73
Standard Deviation = $94

Reason for Selection

The sample design was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units, and is therefore nationally representative. The above estimate was inflated from 1972-73 to 1973-74 using the overall Consumer Price Index.

Two other estimates of books and supplies' expenditures by dependent students living at home were obtained. Wagner (1) estimated such expenses to be $175; however, this figure was based on only a 20% sample of the NLS data. The above figure was calculated from NLS on 100% of the sample. Suchar (5) reported an estimate of $194, but this estimate was simply a compilation of estimates from college financial aid officers throughout the country, and was not based on actual data.

CELL DOCUMENTATION

Cell Number

I-2 (Clothing, Laundry, and Dry Cleaning - dependent students at home)

Source

Horch and Haven (3)

Base Year of Element

1969-70 Academic Year

Collection Method

Questionnaires administered to a sample of 3,363 students who were part of a sample of college sophomores who had been selected during high school and traced through college.

Statistical Measure

Weighted mean = $142

Measure of Dispersion

Relative Standard Deviation = 2.59
Standard Deviation = $368

Reason for Selection

The above figure was the only estimate obtained for cleaning expenses by dependent students living at home. The sample of students for this study was selected randomly from the universe of high school students in 1967-68, and is therefore nationally representative. The estimate was inflated from 1969-70 to 1974-75 using the overall Consumer Price Index.

CELL DOCUMENTATION

Cell Number

I- 3 (Debt repayment - dependent students at home)

Source

Horch and Haven (3)

Base Year of Element

1969-70 Academic Year

Collection Method

Questionnaire administered to a sample of 3,363 students who were part of a sample of college sophomores who had been selected during high school and traced through college.

Statistical Measure

Weighted mean = \$62

Measure of Dispersion

Relative Standard Deviation = 4.14
Standard Deviation = \$257

Reason for Selection

The above figure was the only estimate obtained for debt repayment expenses by dependent students living at home. The sample of students for this study were selected randomly from the universe of high school students in 1967-68, and is therefore nationally representative. The estimate was inflated from 1969-70 to 1974-75 using the overall Consumer Price Index.

CELL DOCUMENTATION

Cell Number

I-4 (Miscellaneous, not elsewhere classified - dependent students at home)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $87

Measure of Dispersion

Relative Standard Deviation = 1.88
Standard Deviation = $164

Reason for Selection

The sample design was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units, and is therefore nationally representative. The above estimate was inflated from 1972-73 to 1974-75 using the overall Consumer Price Index.

Two other estimates of miscellaneous expenses not elsewhere classified were obtained. Wagner (1) reported such expenditures as $199; however, this figure was based on only a 20% sample of the NLS data, whereas the above estimate was calculated using 100% of the NLS sample. Suchar (5) reported expenditures of $455, but this figure was simply a compilation of estimates by college financial aid officers throughout the country, and is not based on actual data.

CELL DOCUMENTATION

Cell Number

I-5 (Total Miscellaneous - dependent students at home)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $215

Measure of Dispersion

Relative Standard Deviation = 0.97
Standard Deviation = $209

Reason for Selection

The sample design was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units, and is therefore nationally representative. The above estimate is an aggregation of all miscellaneous expenditures identified separately in the NLS (books and supplies and other). In addition, the estimate was inflated from 1972-73 to 1974-75 using the overall Consumer Price Index.

Three other estimates of total miscellaneous expenditures by dependent students living at home were obtained. Wagner (1) estimates such expenditures as $374; however, this estimate was based on only a 20% sample of the NLS data, whereas the estimate presented above was calculated on a 100% sample of NLS data. Suchar (5) reported an estimate of $649, but this figure is simply a compilation of estimates by college financial aid officers throughout the country, and is not based on actual data. Horch and Haven (3) estimated total miscellaneous expenditures of $449, almost $100 more than the NLS estimate. Both the NLS estimate and the Horch and Haven estimate were based on similar sample sizes (approximately 800) and were nationally representative. However, the Horch and Haven estimate reported extremely high relative standard deviations for the individual items (from 1.0 to 4.1), and was thus determined to be considerably less accurate than the NLS estimate.

CELL DOCUMENTATION

Cell Number

II-1 (Books and Supplies - dependent students off-campus)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $174

Measure of Dispersion

Relative Standard Deviation = 0.84
Standard Deviation = $146

Reason for Selection

The sample design for the NLS was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units, and is therefore nationally representative. The estimate for books and supplies shown above was inflated from 1972-73 to 1974-75 using the overall Consumer Price Index.

Only one other estimate of books and supplies' expenditures for this student type was reported. Suchar (5) estimated such expenses as $194. This estimate, however, is for 1976-77, and is estimated based on a compilation of estimates by financial aid officers across the nation, not on actual data.

CELL DOCUMENTATION

Cell Number

II-2 (Clothing, Laundry and Dry Cleaning - dependent students living off-campus)

Source

Horch (2)

Base Year of Element

1968-69 Fiscal Year (July through June)

Collection Method

Element is based on a random sample of 10,000 Students' Confidential Statements out of 30,000 submitted to the College Scholarship Service in 1968.

Statistical Measure

Weighted mean = $233

Measure of Dispersion

Relative Standard Deviation = 1.25
Standard Deviation = $291

Reason for Selection

Due to the lack of availability of data on expenditures for clothing, laundry, and drycleaning by dependent students living off-campus, the above estimate is identical to that determined for independent students. This decision was based on the hypothesis that dependent students living off-campus face similar financial situations with respect to cleaning expenses as independent students living off-campus, although there is a possibility that part of the expenditures by dependent students may in fact come from parents.

The estimate presented above may not be completely representative for dependent students, since the sample is only comprised of those individuals who submitted Student Confidential Statements to the College Scholarship Service. However, since no other estimate of student expenditures for clothing, laundry and dry cleaning could be found, the above estimate is provided as an approximation.

CELL DOCUMENTATION

Cell Number

II- 3 (Debt Repayment - dependent students, off-campus)

Source

Horch and Haven (3)

Base Year of Element

1969-70 Academic Year

Collection Method

Questionnaire administered to a sample of 3,363 students who were part of a sample of college sophomores who had been selected during high school and traced through college.

Statistical Measure

Weighted mean = $62

Measure of Dispersion

Relative Standard Deviation = 4.14
Standard Deviation = $257

Reason for Selection

Due to the unavailability of any estimate of debt repayment expenses for students living off-campus, the above figure is the same as that used for dependent students living at home. It was believed that this approach was reasonable, based on the hypothesis that dependent students, whether living at home or off-campus, face similar financial considerations with respect to the need for borrowing funds.

The sample of students was selected randomly from the universe of high school students in 1967-68, and is therefore nationally representative. The estimate was inflated from 1972-73 and 1974-75 using the overall Consumer Price Index. Although the relative standard deviation is rather high, this estimate was the only one identified for this expenditure category.

CELL DOCUMENTATION

Cell Number

II-4 (Miscellaneous not elsewhere classified - dependent students off-campus)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $239

Measure of Dispersion

Relative Standard Deviation = 1.04
Standard Deviation = $249

Reason for Selection

The sample design was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units, and is therefore nationally representative. The above estimate was inflated from 1972-73 to 1974-75 using the overall Consumer Price Index.

One other estimate of miscellaneous expenses not elsewhere classified was obtained. Suchar (5) reported expenditures of $464, but this figure was simply a compilation of estimates by college financial aid officers throughout the country, and is not based on actual data.

1.0
1.1
1.25
1.4
1.6
1.8
2.0
2.2
2.5
2.8
3.2
3.6
4.0
4.5

MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

CELL DOCUMENTATION

Cell Number

II-5 (Total Miscellaneous - dependent students off-campus)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $410

Measure of Dispersion

Relative Standard Deviation = 0.78
Standard Deviation = $320

Reason for Selection

The sample design was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units, and is therefore nationally representative. The above estimate is an aggregation of all miscellaneous expenditures identified separately in the NLS (books and supplies and other). In addition, the estimate was inflated from 1972-73 to 1974-75 using the overall Consumer Price Index.

One other estimate of total miscellaneous expenditures by dependent students living at home was obtained. Suchar (5) reported an estimate of $658, but this figure is simply a compilation of estimates by financial aid officers throughout the country, and is not based on actual data.

CELL DOCUMENTATION

Cell Number

III-1 (Books and Supplies - independent students)

Source

National Longitudinal Study (7)

Base Year of Element

1972-73 Academic Year

Collection Method

A set of three questionnaires administered to a random sample of the universe of all 1972 twelfth grade students enrolled in all public, private, and church-affiliated high schools in the 50 states and the District of Columbia.

Statistical Measure

Weighted mean = $149

Measure of Dispersion

Relative Standard Deviation = 0.74
Standard Deviation = $110

Reason for Selection

The sample design was a stratified two-stage national probability sample with schools as first-stage sampling units and students as second-stage units, and is therefore nationally representative. The above estimate was inflated from 1972-73 to 1974-75 using the overall Consumer Price Index.

Three other estimates of expenditures for books and supplies by independent students were obtained. Wagner (1) estimated such expenditures to be $167; however, this figure was based on only a 20% sample of NLS data, whereas the above figure was calculated on 100% of the NLS sample. The Census Bureau (4) estimated expenses of $99, but this figure included only books. Suchar(5) reported expenditures for books and supplies of $194, but this figure was based on a compilation of estimates by college financial aid officers throughout the country, not on actual data.

CELL DOCUMENTATION

Cell Number

III-2 (Clothing, Laundry and Dry Cleaning - independent students)

Source

Horch (2)

Base Year of Element

1968-69 Fiscal Year (July through June)

Collection Method

Element is based on a random sample of 10,000 Students' Confidential Statements out of 30,000 submitted to the College Scholardship Science in 1968.

Statistical Measure

Weighted mean = $233

Measure of Dispersion

Relative Standard Deviation = 1.25
Standard Deviation = $291

Reason for Selection

This was the only estimate identified that reported data on independent students' expenditures for clothing, laundry and dry cleaning. The element is nationally representative. Although the sample only included students who submitted confidential statements to the CSS, the mean maintenance expenses for SCS filers is $2,265, and the mean maintenance expenses for persons aged 20-35 as calculated in the USDA moderate level budget is $2,395. The high degree of similarity between these two groups indicates that the estimates are quite reasonable. The above estimate was first adjusted from a fiscal year to an academic year (by using 9 months as a standard academic year). In addition, the estimate was inflated from 1968-69 to 1974-75 by using the overall Consumer Price Index.

CELL DOCUMENTATION

Cell Number

III-3 (Debt Repayment - independent students)

Source

Horch (2)

Base Year of Element

1968-69 Fiscal Year (July through June)

Collection Method

Element is based on a random sample of 10,000 Students' Confidential Statements out of 30,000 submitted to the College Scholarship Service in 1968.

Statistical Measure

Weighted mean = $191

Measure of Dispersion

Relative Standard Deviation = 3.17
Standard Deviation = $605

Reason for Selection

This was the only estimate identified that reported data on independent students' expenditures for debt repayment. The element is nationally representative. Although the sample only included students who submitted confidential statements to the CSS, the mean maintenance expenses for SCS filers is $2,265, and the mean maintenance expenses for persons aged 20-35 as calculated in the USDA moderate level budget is $2,395. The high degree of similarity between these two groups indicates that the estimates are quite reasonable. The above estimate was first adjusted from a fiscal year to an academic year (by using 9 months as a standard academic year). In addition, the estimate was inflated from 1968-69 to 1974-75 by using the overall Consumer Price Index.

CELL DOCUMENTATION

Cell Number

III- 4 (Miscellaneous - not elsewhere classified - independent students)

Source

Horch (2)

Base Year of Element

1968-69 Fiscal Year (July through June)

Collection Method

Element is based on a random sample of 10,000 Students' Confidential Statements out of 30,000 submitted to the College Scholarship Service in 1968.

Statistical Measure

Weighted mean = $203

Measure of Dispersion

Relative Standard Deviation = 2.70
Standard Deviation = $548

Reason for Selection

Several important factors entered into the selection of this estimate of expenditures for housing by independent students. First, the element is nationally representative. Although the sample only included students who submitted confidential statements to the CSS, the mean maintenance expenses for SCS filers is $2,265, and the mean maintenance expenses for persons aged 20-35 as calculated in the USDA moderate level budget is $2,395. The high degree of similarity between these two groups indicates that the estimates are quite reasonable.

Wagner (1) estimates expenditures for other expenses to be $269; however, the source of this estimate was a 20% sample of the NLS data, which Applied Management Sciences calculated on a 100% basis. Suchar's (5) estimate was $577 for this category; this estimate was not however based on actual data.

The NLS (7) estimate was not selected for several reasons. Specifically, the NLS sample exhibits a great weakness in terms of estimating expenditures for independent students. Since the sample was selected from the high school class of 1972 who were followed up in the first year after graduation, it is safe

Reason for Selection

III-4 (Continued)

to speculate that not many of these graduates who attend college are independent of their parents. This speculation is borne out by the fact that only 300 independent students are contained in the sample. The Horch study, on the other hand, was specifically designed to estimate expenditures of self-supporting students, and comprises a sample of over 4,000 such students. Due to the above considerations, the Horch (2) estimate was considered to be the most accurate. This estimate was inflated from 1968-69 to 1974-75 using the overall Consumer Price Index.

CELL DOCUMENTATION

Cell Number

III-5 (Total Miscellaneous - independent students)

Source

Horch (2)

Base Year of Element

1968-69 Fiscal Year (July through June)

Collection Method

Element is based on a random sample of 10,000 Students' Confidential Statements out of 30,000 submitted to the College Scholarship Service in 1968.

Statistical Measure

Weighted mean = $627

Measure of Dispersion

Relative Standard Deviation = 1.38
Standard Deviation = $865

Reason for Selection

Several important factors entered into the selection of this estimate of expenditures for housing by independent students. First, the element is nationally representative. Although the sample only included students who submitted confidential statements to the CSS, the mean maintenance expenses for SCS filers is $2,265, and the mean maintenance expenses for persons aged 20-35 as calculated in the USDA moderate level budget is $2,395. The high degree of similarity between these two groups indicates that the estimates are quite reasonable.

Wagner (1) estimated expenditures for miscellaneous to be $437; however, the source of this estimate was a 20% sample of the NLS data, which Applied Management Sciences calculated on a 100% basis. The Census Bureau's (4) estimate was $99, but this figure only included books.

The NLS (7) estimate was not selected for several reasons. Specifically, the NLS sample exhibits a great weakness in terms of estimating expenditures for independent students. Since the sample was selected from the high school

Reason for Selection

III- 5 (Continued)

class of 1972 who were followed up in the first year after graduation, it is safe to speculate that not many of these graduates who attend college are independent of their parents. This speculation is borne out by the fact that only 300 independent students are contained in the sample. The Horch study, on the other hand, was specifically designed to estimate expenditures of self-supporting students, and comprises a sample of over 4,000 such students. Due to the above considerations, the Horch (2) estimate was considered to be the most accurate. This estimate was inflated from 1968-69 to 1974-75 using the overall Consumer Price Index.